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ABSTRACT

The quality of American higher education is being seriously threatened by economic pressures that are unlikely to be relieved in the near future. As undesirable as it may be, it appears that more and more of the costs of education will have to be borne by the college and university students. The Yale University Tuition Postponement Option Plan was created to help relieve both the student and the university of some of their financial problems. The central characteristic of the Yale plan is that it links the student's educational costs to his ability to pay for that education over a working career. To the extent that the burden of repayments varies with income, the Plan relieves the student borrower of the necessity to alter his work or study plans in favor of remunerative careers. The proceedings of the second seminar on the Plan are presented in this document to share with other institutions Yale's work in the development of this kind of student financing. (Author/HS)

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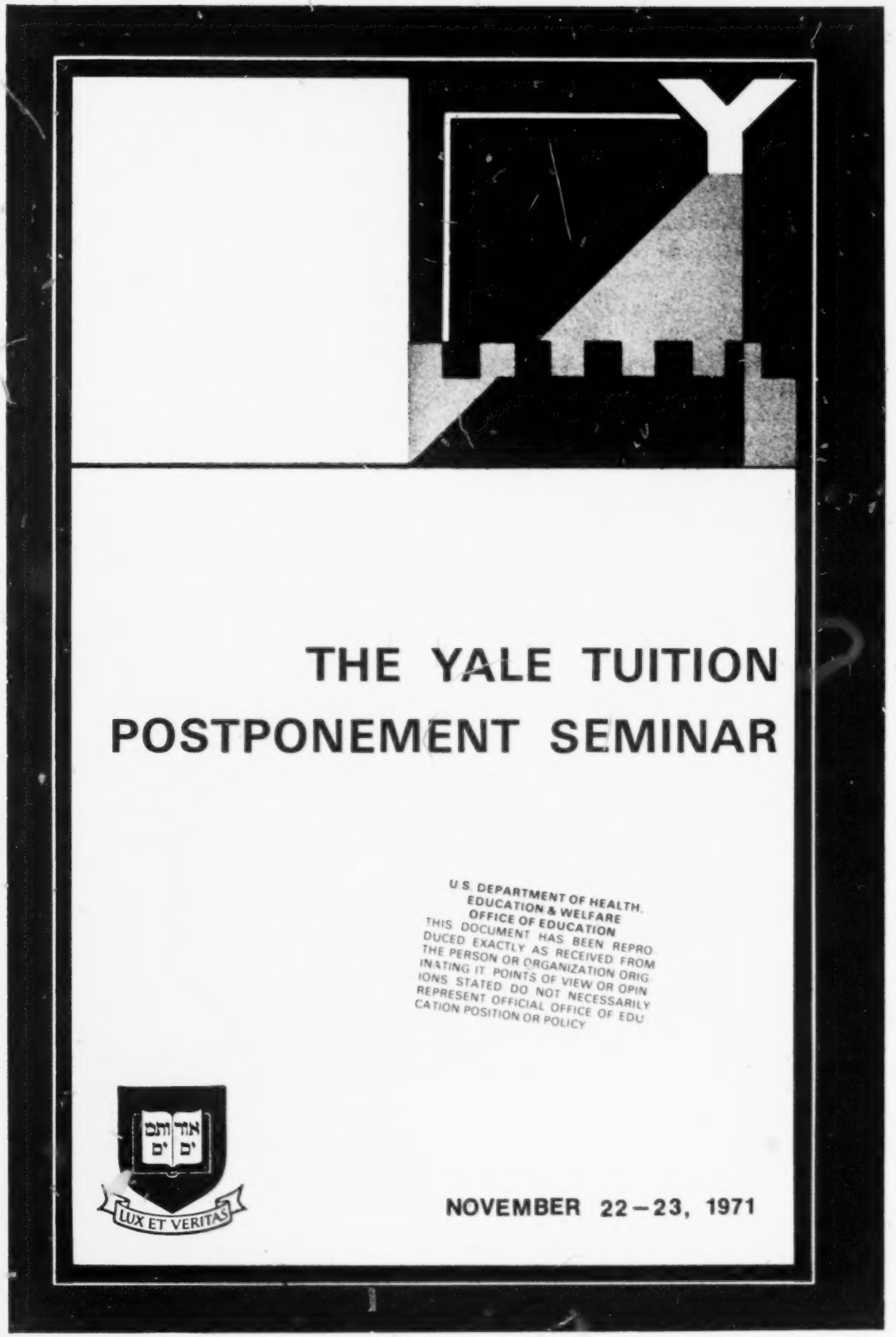

THE YALE TUITION POSTPONEMENT SEMINAR

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NOVEMBER 22–23, 1971

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SECOND

TUITION POSTPONEMENT SEMINAR

Sponsored by Yale University in
New Haven, Connecticut on November 22 and 23, 1971

TUITION POSTPONEMENT OFFICE
451 College Street
New Haven, Connecticut 06520

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PREFACE

The quality of American higher education is being seriously threatened by economic pressures that are unlikely to be relieved in the near term. As undesirable as it may be, it appears that more and more of the costs of education will have to be borne by the college and university students who, along with society generally, are the beneficiaries of that education.

The Yale University Tuition Postponement Option Plan was created to help relieve both the student and the University of some of their respective financial problems. The central characteristic of the Yale Plan is that it links the student's educational costs to his ability to pay for that education over a working career. To the extent that the burden of repayments varies with income, the Plan relieves the student borrower of the necessity to alter his work or study plans in favor of remunerative careers.

The intention to initiate this problem was first announced by Yale President Kingman Brewster, Jr. on February 6, 1971. Sensing a strong interest in the Plan, Yale committed itself to give full and continuing publicity to the study which had gone into its birth. With this commitment, the first Tuition Postponement Seminar was held on April 5-6, 1971.

The proceedings of this second seminar, held at Yale on November 27-28, 1971, are presented to share with other institutions Yale's work in the development of this kind of student financing. The analysis and findings presented in the April seminar have been updated to show recent developments in educational lending, including the actual results of the first year of Tuition Postponement at Yale.

While one of the early proponents of new and expanded forms of educational financing, Yale does not pretend to have the ideal method for all schools. Tuition Postponement is an experiment in which Yale hopes to learn, along with others, how to deal effectively with some of the serious problems that face higher education today.

WORDS OF WELCOME

Albert W. Buesking
Associate Treasurer for Financial
Management and Comptroller
Yale University

Charles H. Taylor, Jr.
Provost and Acting President
Yale University

(Mr. Buesking) Good morning. I want to welcome you to our two day seminar. The auditorium is large, but others had higher educational priorities, namely, student activities. You will have to bear with us on the size. If you have difficulty hearing, we would ask that you move forward.

This is the second of two seminars at Yale. We had one in the spring when we weren't sure exactly where we were going, but we shared what information we did have on the subject of deferred tuition. We will spend the next two days listening to people who have had intimate participation in the thing, as well as those who did not, and try to conduct a series of panels.

Our work has been broken into four parts: economic, financial, legal, and educational research. We have organized in that fashion for these panels. The people on the panels are those who have had heavy participation in the study and development of the plan at Yale as well as elsewhere.

We would like to open our session this morning by having Mr. Charles Taylor, the Provost and Acting President, speak with us briefly. President Brewster is on sabbatical leave in London, and will return in January. Charlie has had the joint responsibility of both the Provost's office as well as the President's office this fall.

(Mr. Charles Taylor) Well, that is something of an exaggeration. At least I have had essential help in the Provost's Office from my associate, George Langdon, who has acted as Provost as much as I have acted as President in Kingman Brewster's absence.

I am here simply to welcome you, and to welcome you on behalf of President Brewster, because the plan that you are here to discuss is one in which he has had a long interest dating back over many years, the idea of an income contingent repayment plan in relation to the needs of higher education.

I should also emphasize that the plan now in operation here would simply not have happened without the energetic support of Yale's trustees and their willingness to go forward, even though we were finally unable to do so as a part of a larger group.

Nevertheless, we continue to be deeply interested in pursuing the development of the idea and encouraging others to experiment with it, either in models

like our own, or perhaps, not exactly like our own, as each institution's circumstances are particular.

I know that I speak for President Brewster when I express our appreciation of your interest in the subject, and your willingness to come here to share our experience. We do not pretend that the specific version of the plan which we have in operation here is the only way to do it. Exactly how to design a similar plan and what choices to make in relation to particular questions will differ for other institutions with different populations and different situations.

We do know, from a national point of view, that in the long run an experiment by one or two institutions alone may not be a convincing demonstration. We were disappointed that it was impossible for a larger group to go forward in the present year. We hope that a variety of programs will be offered next year.

Unless a considerable number of institutions move along in directions that are analogous to this one, the chances for national success of the plan over the longer run are limited. The national government is in the best position to invest in such a plan in a reasonable way, spread over the entire college population. The prospect of interesting the federal government in doing that depends very much on a greater variety of institutions having shown the potential of the plan than is presently the case.

So we are very grateful for your interest, just as we do think we already have some results of our experiment which are worth sharing with you, including clear evidence of the acceptability of the basic idea by students and their families.

I will turn the meeting back to Mr. Buesking.

INTRODUCTION AND BACKGROUND

Albert W. Buesking
Yale University

(Mr. Buesking) Thank you, Charlie. I would like to mention a few logistical points. You all should have a registration package. It should contain an agenda, a copy of the Yale plan, which you may want to refer to at a later point in time, and the contract. There is a pamphlet which is a layman's description of the plan. There is a Question and Answer form, a pamphlet like a social security question and answer brochure; and there is a map of Yale to help you get around the campus. There is also a reprint of Jim Tobin's article about the economic basis of the plan, as well as an excellent bibliography listing everything, of which we have any knowledge, written on the subject.

I would like to spend some time with you at the outset discussing a little background of Yale's plan and how we are proceeding. But from that point forward, I will hope that our discussion will dwell less about Yale's plan and more about the subject in general.

The first item I think that is important is to go into the background a little bit, for those of you who are not totally familiar with the background of the concept. For some of you who are intimately familiar with it, this will be redundant. Milton Friedman in 1955 in Chicago first discussed the idea of income contingent repayment loans for higher education. That was about sixteen years ago.

Shell,[1] then an economist at MIT, and Zacharias,[2] devoted a great deal of study to the plan. They were funded by the Office of Education when Harold Howe was Commissioner of Education. The Zacharias proposal ended up before Congress. It was a national plan that would encompass all of higher education. It did not go forward, probably because the large public land grant universities and their associates could not get together with the private institutions; there was considerable disagreement.

Kingman Brewster has been interested for at least ten years, as Charlie Taylor mentioned. I can refer you to a speech [3] of his in 1961 when he had first left Harvard and became Provost here at Yale in which he was discussing the idea.

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[1] Karl Shell, now Professor of Economics at the Wharton School at the University of Pennsylvania.

[2] Jerrold Zacharias chaired a Presidential Panel on Educational Innovation in 1967.

[3] Brewster, Jr., Kingman. "Two Yale Experts Discuss: Federal Aid for Private Education." Yale Alumni Magazine, June, 1961, pp. 13-14.

In 1969 and 1970 it seemed that the time was right to proceed with some sort of plan at Yale and other places. We made a capital grant proposal to the Ford Foundation to attempt a pilot plan in our graduate and certain of our professional schools. This was the time when we really became interested and got under way at Yale. Ford considered our proposal to provide the capital to lend to students on an experimental pilot model in the graduate and certain professional schools, but in the spring of 1970 decided that it indeed could not finance such a plan. It was too small scale an experiment for them to undertake. It involved the relationship between a major foundation and a major private institution, which was thought might not be perceived correctly in the educational community. In addition, Ford had some reservations about the details of our plan, its possibilities for success, and so forth, so that that proposal was disapproved in the spring of 1970.

Now, you all know the financial crisis that has been upon us, and by the spring of 1970 our own financial situation at Yale became extremely clear: it was very difficult. We have had increasing deficits for five years, from small to substantial. The problem of financing was a very difficult one. Yale has followed a policy of admitting to the college, and the graduate and professional schools, pretty much without regard to need, and without regard to resources. We finally decided we could no longer increase our gift scholarship grants to student aid above the level that was incurred in the 1970-71 academic year.

Then the problem became, how do you finance increases in tuition? Because obviously we felt those increases would come. Our costs were still rising at a rate that we could not accept without passing at least a portion of it along to the students through tuition. So in the summer of 1970 we undertook a university-wide study to develop a plan that we could make operational the following year. Again we asked the Ford Foundation's involvement, because its philanthropic interest in this area, we thought, was quite substantial -- and indeed it was. Ford attempted to get twenty-two major private and public institutions, minority and majority institutions, involved in an experimental program that would start this past July 1. Many efforts were put forth by those institutions and by the Ford Foundation to develop a plan involving in some fashion the Ford Foundation in the financing and underwriting of those plans.

After about three months of effort from late October until about the end of January, the Ford Foundation and the other institutions came to the conclusion that they could not get their plans in order in time. Yale was faced with the decision of going ahead by itself without participating in a larger-scale experiment, or abandoning its plans at that point. The decision of our trustees and our officers was to not abandon the plan. On the 6th of February it was announced that we would proceed with the deferred tuition plan for the academic year 1971-72. One other institution decided to conduct an experiment on a smaller scale. Duke does have a plan, and two representatives of Duke University will be here to discuss that plan.

A number of other plans are being discussed. The Governor of Ohio proposed legislation about a form of deferred and variable repayment loans. Many other state legislatures are studying the idea. That gives an idea of our

background on how and where we are. We have done little original conceptual work; we did some. Primarily we attempted to take an idea and make it operational.

I would like to describe the characteristics of the plan for you, so that you won't have to read them out of that heavily legalistic document, the Plan. Again, this may be redundant for some of you who are familiar with it, but I think it is worthwhile going over it.

The first major characteristic is the tax rate on adjusted gross income. The tax rate is .4 percent per $1,000 deferred, times the annual adjusted gross income, for a period of up to 35 years. Now, the tax rate is a major variable in our plan. You could have higher tax rates and shorter term, or lower tax rates and longer term, although 35 years seems to be as long as you might like. We experimented with a number of tax rates and term variables. Our economic research panel will discuss that in detail.

The second feature is the length of term. Thirty-five years is the length of the obligation of the group and the individual. That is quite long. It is aimed at being the earning lifetime of the individual. After second thoughts on our part, it may seem overly long, but in fact that is the time period we have.

Another characteristic is the semi-annual payment on the part of the individual. We wrestled with the monthly, quarterly and annual payment. Those of you who have attempted to make an annual tax payment on your house know how difficult it is; and yet a monthly payment plan, in talking to finance companies and banks, is costly to administer because of the frequency of the payments. So we settled on the semi-annual payment.

The next characteristic of the Yale Plan is that it applies to tuition increases only. It is not a plan that is aimed at financing all tuition at Yale. It is aimed at financing a portion of it. Currently, the freshman taking the maximum allowed would pay about 25 percent of his total education bill at Yale.

Another feature, which Charles Taylor dwelt on briefly, is the fact that this is a five year experiment. Unless other long-term financial institutions, or governmental agencies and the administration, come up with some new forms and ways of long-term financing, we can offer this for only five successive years, and then our capital capacity will be pretty well exhausted. As we look at the capital requirements of this plan beyond five years, it is more than the Chemical Bank would probably be willing to lend us. So we have limited it to a five year offering. We will have invested about $25 to $28 million of Yale's credit in the form of debt in this program over this period of time.

Another feature, which is a controversial one, is the fact that this is both an individual obligation and a group obligation at Yale. Most of the other plans you may have heard about and the experiments you may have read about have aimed at individual, variable term, variable rate repayment loans. Our plan is in effect like a mutual income insurance group. It operates exactly as if we were in a group life insurance plan instead of a

group insurance income plan. For the individual who fails to meet his obligation, either through death (which is handled by group life insurance) or through a bad debt, or just pure catastrophe, the group as a whole has his obligation and his interest cost to pick up. And at such time as the group as a whole has discharged its obligation to Yale (that is, the amount deferred plus interest cost), the group as a whole is discharged.

Now, there are floors and ceilings on payments of individuals, both for legal and tax reasons, as well as probably purely market reasons. There is a minimum repayment required of every participant. Every individual who joins the plan must pay back what he deferred. He, in effect, has an interest-free, administrative-cost-free loan for the period of time. He has to pay $29 a year for 35 years for each $1,000 that he defers. So that everybody is obligated to pay back the amount deferred, even if the group discharges as a whole.

On the other hand, we also felt there should be a practical limit as to what people were obligated to pay. We played with everywhere from 200 percent as a buy-out amount to 112 percent. The amount is based on the usurious rate of interest in Connecticut, which is 12 percent. We finally settled on 150 percent. So that an individual who does very well, or an individual who doesn't like the idea of this contract once he has entered into it, may get out of the plan by making a payment of 150 percent of the amount he deferred plus interest. The 150 percent may result just from his high income reported on his form 1040, so that as he pays and he reaches 150 percent, we will notify him. But if after four or five years out he either comes into some money or he just doesn't like the idea of this long-term debt, he can buy out with a penalty, and the excess amount over his principal is all deductible as interest.

We have what is an equitable spouse rule, we hope. Even with Jim Tobin's help, we were still unable to find a spouse rule that was totally equitable under all situations for both male and female, and for the group as a whole. So that we do have a spouse rule that has some question about it, but it has, in our mind at least, the minimum amount of complications.

The final feature of our plan, which is not a characteristic but is a fact behind it, is the method we chose to finance the plan. We are using short-term borrowing from commercial banks at a formula that relates to the corporate prime rate. Whatever it costs us to borrow, we will pass that along directly to the student by re-setting the interest rate every six months in the plan. Yale's cost of administration, not to exceed one percent, will be added. We neither intend to do well or do poorly based on fluctuations in the cost of money.

As I said before, in mounting this plan, in the summer of 1970 we decided it would be necessary to almost take a task team approach. We started to do extensive research into the economic underpinnings, the legal underpinnings and the financial approaches that we would take. Needless to say, the educational research is still virtually untapped. We have only just started that, and it will be discussed. Jim Tobin is going to talk to you shortly in the major economic area, and we have a panel that will discuss it in more detail. In brief, we looked at income profiles of Yale graduates,

primarily in the college, and secondarily in the graduate and professional schools, with some assistance from the national census data of 1970. We looked at inflation rates and interest rates. Then we developed a computer model which would hold all of this data, and then tell us what tax rates we would need to apply to those incomes. More about this later.

In the legal area we did substantial research, with the assistance of Wilmer, Cutler and Pickering, a Washington law firm, and with Wiggin and Dana, our local counsel. We looked at usury, the precedents of law involved, the tax treatment, including Internal Revenue Service treatment, Truth-in-Lending, and the Uniform Consumer Credit Code. This latter happened to be in the State Legislature of Connecticut at that point in time, and has also, I think, been written into the law of at least five or six states across the nation now. Most of the rest of the states are considering a form of Uniform Consumer Credit Code.

In the area of the legal work we have had two accomplishments at least. We do have an Internal Revenue Service ruling which provides for a unique tax treatment. Mr. Tobin has described it as a very favorable ruling. The first payments an individual makes are all considered principal. When principal has been repaid, some small amount of subsequent payments will go to pay group life insurance, and then all succeeding payments are deductible as interest. Interest payments are into those years where the individual is more likely to be at a higher tax rate. The benefit of those deductions is therefore greater than if he had received them in earlier years when he may have been taking the standard ten percent or $1,000 deduction, and might not have had sufficient deductions to itemize.

The methods of financing the plan can be varied. We looked at long-term debt, we looked at short-term debt. We talked to pension funds; we talked to commercial banks; we talked to insurance companies; and we talked to investment bankers. Our panel this afternoon will include representatives from each of these kinds of institutions, and will discuss it.

In brief, we will finance the plan with short-term borrowing, rolling the debt over every 90 days, until such time as we devise a longer term method and a more stable method. Our desire is to tie as closely as possible to current interest rates and not lock into a long-term 35 year rate, which might be either to our detriment or to the detriment of the group.

In the educational area, as I said, we have only started research. We will have a panel to discuss this. We are looking at our own students at least. What are the socio-economic factors involved in their decision-making to participate or not participate in this plan? What motivates people toward this ? What are their risk preferences? Do they like to avoid risk or do they like to undertake it?

Another consideration in deciding to move ahead when we did had to do with the various constituencies with which we all have to deal. The timing seemed right for all five of our major constituencies, who seemed receptive and interested and were willing to move forward. I classified those in our case as the Fellows of the Corporation (Yale's trustees), the officers, the faculty, the students and the alumni. The degree of briefing and the degree

of participation and the degree of acceptance of these varied. But, needless to say, we did have to get the formal consideration of the officers and the trustees. But just as important, we have to brief and get the general acceptance of the student body involved and the faculty and the alumni.

It took a fair amount of organized effort to develop things to this point in time. We set up a separate identifiable group called the Tuition Postponement Office. Bill Curran is the Acting Director. He has three associates, one for student affairs, one for alumni affairs, and one for research and evaluation. The reason I mentioned this is that anybody who is seriously interested in such a program should be willing and ready to commit some resources to it, because you cannot do it as a hip-pocket operation. We felt that we had to move it out of our regular bursar, financial aid, and student loan operations until we had the thing off the ground and running. At that time we might be able to fold it back into the regular organization structure that we have for these things.

Start-up costs were not insubstantial. To date we estimate we have probably invested a quarter of a million dollars in the plan. These are purely for start-up. Some of this I don't think will ever have to be invested again by those of you who develop your own plans. The legal research that was done, except for the particular application to other states, or on specific forms, we think is done and over with. Because the Internal Revenue Service ruling, for example, will become a public ruling, it will be more procedural than fundamental to file for an Internal Revenue Service ruling on a given plan that some other institution might come up with.

We did a fair amount of computer modeling to assist us in analyzing our plan. That model is available to anybody who would like to pick it up and use it for a very minimal investment on their part, to understand the thing and be able to have their people operate it.

I might summarize our objectives in the plan -- and I think Jim Tobin can probably add to some of these -- aside from Yale's own financial situation, which was not the overiding predominant interest, although it probably affected our timing. The first is to provide long-term credit for students to invest in themselves. There is no vehicle currently where they can go down to the First New Haven National Bank and borrow for extended periods of time without credit sources or assets.

The second objective is to stimulate interest in the plan throughout the educational community with a viable, workable plan, and communicate how we are doing it to others so they can judge it and perhaps move on with it themselves.

A third is to stimulate the foundation of a secondary money market. Some of the bills before Congress have contained the idea of a secondary money market. As I mentioned earlier, our capital requirements became so substantial in a very short period of time that we had to limit ourselves to a five year offering. Hopefully, we will find other ways of creating the capital that will be necessary to finance ourselves as well as others on a long-term basis.

Our results to date -- these will be dealt with in detail later -- are briefly: something over 1,400 contracts have been signed by students, with the freshman class having the largest percentage, almost a third, and the senior class about a sixth, and varying degrees of participation in the graduate and professional schools. Surprisingly enough, you couldn't say that the arts and humanities students are taking it and the lawyers and doctors are avoiding it. (Actually, income expectation is pretty good across all income profiles and across all participants.)

One final feature, and then we will have Jim Tobin talk with us, is that in attempting to deal with the majority problem (that is, when students reach age 21) we require that both he and his parent or sponsor execute the contracts. We decided we couldn't execute a contract with a parent on his income. So that in fact the student who signs up is really only committed to a short-term compound interest (but straight interest rate) commitment, and he can buy out before graduation if he elects to do so. So that if three or four months before graduation time the student decides, "I don't like the idea of a long-term plan, I didn't understand it when I was going into it," or "the truth-in-lending statements were not clear," then he can say "I want out." We have a pre-graduation settlement feature. What he pays is the principal, a small charge for insurance and the compound interest to date; then he is not a participant in the long-term phase of the plan.

So there may be some of our participants using this as a convenient borrowing device while in school. Unless we end up with an adverse selection, with all those people who are going to do well deciding to get out, and all those who are not going to do well deciding to stay in, it should work out all right. Our basic assumption is that we will have among participants a distribution of incomes and occupational mixes similar to those that we have had historically at Yale.

I would like to have Jim Tobin talk with us. Jim was our senior economic advisor and participant in the plan. Jim Tobin and Joe Peck from the Economics Department are going to be on the panel this afternoon. They all worked very heavily on that aspect of it, as well as provided guidance and counsel to Kingman and the rest engaged in the development of the plan. It is to his great credit that we think the economic risk in the plan is minimal for Yale, and is very fair to the student. I think those features are primarily the result of his efforts and his input.

ECONOMIC CONSIDERATIONS IN TUITION POSTPONEMENT

James Tobin
Sterling Professor of Economics
Yale University

(Mr. Tobin) I don't know if any of you have had a chance to see the issue of the Yale News which came out on Friday. You must realize that we just had what we parochially call The Game, and on that weekend you can't always be sure that issues of the college newspaper are genuine.

Well, this purported issue of the News announced the decision of the Yale Corporation to have the first domed college football stadium in the United States. According to the paper, this was a premature disclosure of a decision which the Corporation was not yet ready to announce officially because they were waiting, it said, for Professor Tobin to produce a financing plan.

But another story in the same issue said, "A student close to Professor Tobin has disclosed the details that he has in mind for the financing plan, which will consist of the Ticket Postponement Option. You may subscribe to seats in the new dome-covered Yale Bowl for 'The Game' and other games. The percentage of your lifetime income that you pay for the tickets varies depending on how good the seats are." The satire is so well done and well informed one would think it was done by people here at Yale. But past experience is that these spoofs are due to the newspaper of the visiting college; so the Harvard Crimson is presumably to be credited.

Let me begin by saying that as a faculty member and not a member of the administration, I can be free to diverge from what might be the official line. I may do so inadvertently, and you can't hold the administration to what I say about the philosophy of the Plan or its details.

Let me list a few of the premises of the Tuition Postponement Plan as I see them. One is that it is necessary and inevitable that students pay a larger part of the cost of operating universities like Yale, and most other colleges and universities too. These costs are rising faster than incomes coming from federal, state and local governments and from private philanthropy. This doesn't mean that students will pay the full cost of their education, whatever that may be. But they will have to pay a higher percentage of this cost. The percentage will differ between

state institutions and private institutions, and among private institutions. But I think it is inescapable that students will have to bear a larger share of the burden of financing their education. That is premise number one.

The increased burden may take one of two forms in an institution like ours. Either those students who now pay full tuition and don't receive financial aid are going to pay more; or the amount of financial aid given to those in need is going to cover a smaller portion of the costs levied on the students, or both. In this case some other means has to be provided to enable financial aid students to make up the difference.

Either way, there will ultimately be a greater net take from students or their parents, available for the operation of the university. I think we should avoid extreme statements on this point. On the one hand, I think it would be less than candid to deny that adoption of plans like this one will facilitate charging more of the cost of education to students. One of the advantages of the Plan is that it will charge students more, and do so in a way that we hope will be relatively painless, although no way of charging people more for what they get is going to be painless.

On the other hand, I think it would be wrong to say that this kind of plan is an entering wedge and that students ultimately will be asked to pay full cost. It need not be that at all. It is certainly not that in our thinking. The general philosophy of this institution, as an independent private university, is not to be disproportionately dependent on any one source of its financing, whether it be government, alumni or students. The independence of the institution comes from diversity of financial resources. I think that our President and our Corporation strongly believe in this principle.

Faced by financial problems, as this university is, the objective of the administration has been to maintain the quality of the institution while maintaining its strong commitment to be open to students without regard to their economic or financial background. And the university does not want to sacrifice this commitment to the necessity of charging higher fees to students.

These premises seem to lead to the pretty obvious conclusion that we have to rely more on loans of some kind than we have done in the past. I don't know whether Mr. Buesking has set any ground rules for these two days in regard to the word "loan" or the word "borrowing". You will notice there is a circumlocution involved in 'tuition postponement' that avoids these dirty words. But between us, if I occasionally say that the students are borrowing rather than "postponing", or that Yale is lending them money, or that their obligations are loans, you will understand my professorial deviation from the approved terminology. It doesn't mean

anything beyond that.

Apparently we have to look for a scheme which places greater reliance on some kind of loan. First of all, we might ask, why must the loans be made through university sources, or through special private or public sources? Why can't they just be loans in the general market, from your friendly neighborhood bank or insurance company? Of course, these are genuine possibilities. But in the past, aside from special efforts with government guarantees, there has not been an easily available source of long-term loans for financing higher education.

There are in any case good reasons to think that the university can be of service as an intermediary between students and lending institutions. The university can use its own credit to consolidate and guarantee vast numbers of student IOU's. There is a considerable economy in having the university -- or some consortium of universities or some public institution -- deal with the ultimate lenders rather than have each student deal with the lenders individually. The university may have a considerable advantage over financial institutions in dealing with its own students and alumni in the administration of loans. So I think there is a case for saying that the university can provide a service by being an intermediary between the borrowers and the ultimate lending institutions.

In any case, there certainly is a gap in the menu of financial instruments available for the financing of higher education in the private market. The risks involved in lending to individual students, combined with the cost of administration, have discouraged purely private lenders from going into this business on a big scale. There is a gap in the loan market which needs to be filled.

The next question might be, "Why long-term loans?" As we know, most of the educational loans available in the past have been rather short in term. This has been true whether they were made by banks or from the various subsidized loan funds that many institutions have. The advantage of long-term loans is that in the first few years after graduation the ability of the alumnus to repay the lender is at its least, and the burden of loan repayment is at its greatest. As income rises with experience and seniority, ability to repay loans increases rather than diminishes. Paying back any substantial educational loan in the first ten years after graduation would be a real burden on graduates who don't happen to inherit a fortune. The absence of long-term loans, I think, has been a serious shortcoming in the loan programs available to students in the past.

I am going to come back to this question in a few minutes, but let me go on to the next question: Why income-conditioned

loans, the sort that we have in our Tuition Postponement Option? Why not simply make conventional long-term loans available, fixing the dollars to be paid back? Why not use a fixed schedule of payments in dollars rather than a schedule that varies between borrowers according to their income experience?

I don't think there is a categorical right or wrong answer to this question. The case for income-conditioned loans seems to me, and to lots of other people who have studied the matter, to be an obvious application of insurance principles. Students when they are in college, or even in graduate school, are quite uncertain about what their incomes will be after they get out and start their careers. They have every reason to be uncertain. They often don't know what career they are going to undertake. Even those who know the general occupation they intend to enter often don't know what branch of it. Corporation tax lawyers or storefront poverty lawyers? Neurosurgeons in New York or family doctors in the wilds? And, of course, no one can be sure how lucky or how unlucky he will be.

The trouble with a conventional fixed dollar debt is that if a graduate turns out to have a low income career, either by choice or by luck, then that fixed dollar obligation is a heavy weight around his neck. It would be very hard for writers and artists who never quite make it to repay $10,000 or $12,000 of debt plus interest.

On the other hand, if you were lucky and hit it rich, the fixed dollar obligation would be easy to pay back, especially if it was a long-term obligation. Risk, almost by definition, is two-sided. If the coin shows heads you do extremely well. Tails you do very badly. Some people like to take risks of that kind. Most people probably don't. At least it is our guess that most people don't. They would rather be relieved of this particular risk and enter a mutual insurance pool with their classmates and schoolmates. In effect, they all assume a collective debt to the institution rather than an individual debt. The insurance feature of the collective debt is that those who do poorly will pay little or almost nothing back to the lending institution while those who do well will assume a larger share of repayment than their share of the debt.

The students are relieved of the risk of having to repay debt without any income. But the lender isn't really taking much risk. This is the magic of the law of large numbers. Even though we don't know that any particular student is going to do well or poorly later, we can guess with a great deal more confidence what a large group of them will do on the average. The variations in ability to repay debt among individuals wash out for a large group.

It follows that the university can assume the risks that would otherwise be on the shoulders of the borrower without taking a lot of risk itself. This is another way in which the university

can be of service as an intermediary between lenders and borrowers: by acting as an insurance company, and using the advantages of risk pooling to relieve the individual borrowers of the risks of borrowing against uncertain future incomes. We could be wrong in assuming that there are lots of students who would like to shed this risk onto broader shoulders. But our assumption is that many students are genuinely uncertain about where they will be after they graduate, and would not like to assume a debt which they are going to have to pay regardless of how well they do in future years.

I have been a little bit surprised sometimes to hear colleagues in other universities say that the program looks like a good thing for graduate and professional schools but not for undergraduates. Actually, the risk-sharing rationale of the program applies best to undergraduates, because they are the ones who are most uncertain about their future careers. Most haven't chosen whether they are going to be lawyers, clergymen or teachers, and they have less information than medical students and lawyers about what their future incomes are going to be.

The insurance scheme in the Plan can also be regarded as a redistributional scheme. It is redistributional because those alumni who do have high incomes are going to pay more to the university for their education than those alumni who have bad luck or choose careers that don't pay high incomes. In the insurance sense, this redistribution is nothing more than the kind of redistribution you get when the premiums of people whose houses don't burn down are distributed to people whose houses do burn down. We don't normally think of this as redistribution and worry about whether it is fair. If you take out fire insurance and pay premiums and never have a fire, that is just the luck of the draw for you. True, your premium will help to rebuild the houses of those who do have fires, but you don't regard yourself as subsidizing them. There but for the grace of God....

But it may not be fruitful to push the insurance analogy too far. Let us admit there is also a redistribution between higher income alumni and lower income alumni involved in the Plan -- especially if those who have higher incomes had no choice but to borrow in the Plan when they were in college, and especially if some of the low income alumni chose that status partly because so much of the gains of working harder or more lucratively would go to Mother Yale and Uncle Sam. Even so, I don't think it is a very revolutionary or objectionable kind of redistribution. Most institutions of higher education are already accustomed to redistributions based on parents' incomes. Financial aid programs deliberately involve the idea that parents of students who are able to pay should pay more than the parents of students who are not. The Tuition Postponement Option merely applies the same principle retrospectively to the students themselves.

Another question along the same line is -- why not offer the students a choice? Why not have both plans available, a fixed dollar plan and an income-conditioned plan, and let every borrower choose which one he wants?

We don't really know whether that can be done successfully. To a limited degree, it is being done in our Graduate School of Arts and Sciences. We will probably learn something from that experience. On the other hand, there is an obvious danger of adverse selection in offering both plans at once. There would be a tendency for those students who believe, and probably with some justice, that they are going to be the high income alumni, to choose fixed dollar loans, and those students who think they are going to be the low income alumni, to choose the income-conditioned loan.

But business corporations sell both stock and bonds. Why can't individuals do that too? Common stocks are analogous to income-conditioned loans. When a corporation issues shares, it is giving shareowners a portion of its future income, just as tuition postponers are giving Yale some share of their future incomes, a sort of equity in themselves. Corporate bonds are analogous to conventional fixed dollar student loans.

But there is a big difference. The analogy breaks down. The university does not, cannot, make an individual deal with every student, tailored to his income prospects and balance sheet. We do not, cannot, make the price at which he can sell equity to us vary with his prospects and with our appraisal of his prospects. We are making a blanket offer to buy the "equity" of all students at the same price. The stock market appraises the income prospects of each business, how much it has borrowed, and decides how much a claim on the business' income is worth. A blanket arrangement offering the same terms and price to all students has to be one plan or the other. The group decision must be made to decide which one is better for most students.

Bill has referred to a good many of the features of the Yale Plan. You will be discussing others in your smaller groups in the next two days. You will want to know the particular features and details of the Plan compared to other plans. But I hope you will not lose perspective. The differences of detail between proposals of this kind are really rather minor compared with the basic principle of scaling payment obligations to income.

The outside limit of a borrower's TPO commitment is thirty-five years. A great many students are a little appalled by that number. Thirty-five years is an awfully long time when you are barely half that number of years old. I suppose it is understandable that students think "God, I am signing away my life for thirty-five years."

Of course the main purpose of the long term is to provide an advantage for the student. If you sign away your life for thirty-five years, you sign away a good deal less of it per year than if you sign it away for only ten years. So the long-term nature of the Plan is really an advantage, not a disadvantage, to the borrowing student. One of our biggest public relations problems, I suppose, is convincing the student to view the long pay-back period in the proper perspective.

But maybe students prefer to pay faster. I want to emphasize that our Plan provides that the borrower who wants to pay back faster has the opportunity to do so. Although your obligation in any one year is based on your income (four-tenths of one percent of your adjusted gross income for every thousand dollars you borrow) you can pay more than that into the Plan at any time you want, and you will be credited with the interest rate on the excess of your payments. This could be a rather convenient savings vehicle for many people, since it would yield an interest rate in excess of the prime rate. Savings banks don't pay anything like that for money you put aside. You can take the money out by paying less than required in a later year, or in cash at group termination. When the payment group as a whole has paid back everything, if some individual member has paid more than he needed to on the basis of his income up to that time, then he gets his overpayment back. He is not losing by repaying in advance. So if anybody wants a schedule of repayment which is faster than the one that is allowed for, individually he may choose that.

As Bill said, if the borrower pays back enough -- by just following the agreed schedule or by advance payments or even by one whopping advance payment -- if he pays back enough so that he has repaid the university one-hundred-fifty percent of what he borrowed, with interest on that one-hundred-fifty percent, then he is individually excused from further payments and his debt is discharged. We cannot claim to have scientifically arrived at this early repayment penalty of fifty percent. We had two obvious considerations in mind. One is that in order for an income-conditioned plan to work, some people have to pay back more than they borrowed plus interest, because some people pay back less. The average has to come out so that Yale gets back its money at the interest rate it has to pay.

On the other hand, if we say that everybody has got to continue payments proportional to income no matter how much they pay back, then we may discourage those people who expect to earn large incomes from participating in the Plan. So we have got to have some individual cut-off point low enough to keep the lucky high-income people in and at the same time high enough to compensate for the below average earners. We don't know whether one-hundred-fifty percent is that point or not. We will find out after thirty-five years or so. But we hope to find out at least a little bit about the expectations and characteristics of the students in the Plan before then.

An alternative to this one-hundred-fifty percent rule, which you could regard as a penalty for early or premature payment, would be simply to have the interest rate vary. The Ford Foundation has suggested a plan under which there would be a maximum interest rate. Any time you paid back your debt at that interest rate you would be excused. Other people would go on paying, and the average interest rate, of course, would be lower than the maximum interest rate. I can't get excited about the difference between our rule for letting people off and the Ford rule for letting people off. I think our rule should keep more high-income people in the Plan. I think there is some justification for a penalty for early repayment. It is not an unusual device in financial arrangements.

I mentioned the group termination provision. I think that is really a very nice feature of the Plan. The members of each payment group all start paying in the same year. To many borrowers, membership in the Tuition Postponement Class of 1975 may be as important as membership in their Yale class. They can have reunions of the Tuition Postponement Class and urge their fellow members on to greater incomes and harder work. The sooner that class pays back the collective debt plus the interest that Yale has actually incurred, plus the allowance for administration costs, then the sooner the whole group is discharged. This makes it possible to say that the university cannot make money on the Plan.

We guarantee that even if the group has not terminated its collective obligation before thirty-five years, it will still be discharged after thirty-five years. It is a one-way risk. Favorable events during the earnings years of the Tuition Postponement Class of 1975 will rebound to its benefit by moving up the termination date. Unfavorable events, if they are just a little unfavorable, will postpone the time it takes the group to terminate. If events are very unfavorable and the group does not terminate before the thirty-five year limit, then that is Yale's loss. Our calculations indicate that the expected time of termination is twenty-six or twenty-seven years. So Yale has an eight year margin to cover the possibility that our expectations of the incomes of the borrowers are too optimistic.

The other aspect of Yale's Plan I might mention is the way Yale is raising the money by short-term borrowing. The essential reason for borrowing short-term is to have a variable interest rate, an interest rate to which we are not committed for a long period of time like twenty to thirty-five years. If we could encourage a degree of innovation on the part of the financial institutions so that they would provide a long-term instrument with a variable interest rate, that would be better than having to roll over short-term credit every 90 days or six months. We hope that innovation is not confined to academic circles, and that we can encourage some innovation in debt instruments that will be suitable for this kind of situation.

What is the reason for wanting a variable instrument rate? The reason is to diminish the university's risk. Let us consider the kind of risk that the university would run if it floated a long-term thirty-five year debt at a fixed interest rate. I don't know what it would be, maybe 8 percent, maybe less. Suppose we were locked into that interest rate for a long period of time. Then, of course, we could make the charge to the students as a percentage of incomes high enough so that, with our expectations of their future incomes, we can pay the fixed interest note back.

But what are the risks on the two sides? One is that Yale alumni incomes will rise much faster than we or the financial markets anticipate, and maybe the productivity of our students will also rise faster than we anticipate. If alumni incomes rise more rapidly than we thought, they will pay back lots of money, and they will pay it back very soon, relatively speaking. We won't have any trouble paying back our long-term debt, and the members of the Tuition Postponement Class of 1975 will benefit because they will be discharged earlier. That is the favorable outcome.

The unfavorable outcome, if Yale had to borrow at fixed interest, would be that we were over-optimistic about the future of Yale alumni incomes. Perhaps they grow very slowly; maybe our graduates' productivity doesn't grow as fast as in the past. Maybe inflation isn't as great as we anticipate it. But we still have 8 percent around our neck. The students even after thirty-five years have not repaid enough for us to pay back the loan with interest. This is the unfavorable contingency. And this unfavorable contingency could mean a loss to Yale, not just a postponement of the group termination for the borrower.

How do we reduce that kind of risk? By having a variable interest rate. Historically there is a connection, for good economic reasons, between interest rate levels and the rates of growth of dollar incomes. When we have an econimic environment which is inflationary, which is booming, and in which Yale graduates' incomes are rising very rapidly, we can also expect this to be an environment in which interest rates are high. The high interest rate would offset the unexpected size of the repayments from our borrowers; the two effects would wash out.

On the other side, in the case of unfavorable happenings, lower inflation than financial markets now expect, we would expect interest rates to be lower too. If our graduates' incomes were sluggish in the future, we would expect a sluggish economy in general, and that would mean low interest rates. We would be protected against the contingency of low incomes by the fact that, although we were getting back less than we hoped in repayments, we also had to pay less in interest. Short-term borrowing seems to me to be the conservative thing to do. We hedge the risk by having the interest rates variable rather than fixed, no matter what the institution borrows.

Now, of course, none of this saves us from the ultimate cataclysmic risk that all Yale students decide to become beachcombers in the South Seas, and never earn a nickel after they graduate. Then we won't get any money back. In that case, we probably wouldn't get the money back from fixed interest loans either. But we wouldn't have any legal recourse under our type of loan. So that perhaps is the gamble that we take.

Of course, these problems would vanish if the government provided or guaranteed the financing. A secondary market could be created in Washington to purchase educational paper of this kind. Or the Treasury's borrowing capacity could be used to raise the funds.

Finally, let me emphasize that this is an experiment. We are beginning to find out what the degree of acceptance by our students is and what it will be. We are just beginning to find out what kinds of students choose it, and what kinds don't. Fortunately for those of us who were in on the designing of the experiment, a full verdict won't be in until we are not here any more.

Thank you.

(Chairman Buesking) Are there any questions that you would like to ask Jim about this? I have one. Did you mention the three percent variance between the assumption of growth in incomes and interest rates?

(Mr. Tobin) I should have mentioned that. Our calculation of the expected time it would take a payment group to repay is twenty-six or twenty-seven years. This calculation is based on the assumption that Yale's borrowing interest rate will exceed the rate of growth of Yale alumni incomes by three points. Should it turn out that, as between 1950 and 1970, the incomes of college and university graduates rise at 4 percent a year, we are all right if we can borrow at 7 percent, three points higher than that.

Should it turn out that, because of inflation, the rate of increase in alumni incomes is 6 percent a year, then our calculation of 26-27 year group termination would depend on borrowing at 9 percent. There is always a 3 percent difference. With the help of public guarantees or publicly-supported secondary markets, you might possibly be able to diminish that margin. That would diminish the cost imposed upon the borrower.

(Voice) I think you probably should say something about how you treat women.

(Mr. Tobin) We treat women the same as men. A borrower's obligation to repay in any year depends upon his or her income, or one-half of the joint income of the two spouses, whichever is higher. Maybe I can give you an example. If you are a Yale man, and you borrow $5,000 during your career at Yale, your normal obligation is to pay back 2 percent of your income. The question is, what income is it you are supposed to take 2 percent of?

Suppose you have chosen, after graduating from Yale, to stay at home and raise the kids and fix the leaky roof, while your wife, who didn't go to Yale, is earning $20,000 a year as a bright tax lawyer. If the couple files a joint return, then the income that the Yale graduate must use in calculating how much he must pay is half the joint income, or $10,000. So the wife has assumed an obligation under the Tuition Postponement Option by marrying the indebted Yale graduate.

If two Yale borrowers marry each other and they each have borrowed $5,000, then each one has an obligation of 2 percent of some income. If they each made $20,000, it would be the same as if they were single individuals. They would each be paying 2 percent of the $20,000.

If, however, one of them makes $30,000 and the other makes $20,000, the obligation is still expressed for each of them as 2 percent of the individual income or one-half of the joint income, whichever is higher. One-half of the joint income would be $25,000. So the individual making $20,000 would be paying on an income base $5,000 higher than his or her own income; that would be the consequence of being married and having uneven incomes.

I think it must be true de facto, that a couple can avoid paying on the basis of their joint incomes by filing individual separate tax returns. It is only the couples that file joint tax returns that are going to be treated differently from two single individuals.

(Chairman Buesking) I think the legal panel will discuss that some more. One thing we did not attempt to do in the Plan was to solve deficiencies in tax law, that is, income which escapes the 1040, which is tax-exempt. There are a number of loopholes, and there are a number of inequities because of the tax law and joint versus single returns. We tried to take those inequities as given without solving them, even though we wouldn't have total equity as far as incomes were concerned.

(Margaret Howards, Hampshire College) I haven't really thought this whole thing through yet, but it is clear that once you state "whichever is higher," in the majority of cases you are applying a different rule to men, because there is discrimination in employment patterns. There are not many families where the woman earns more than the man. So that in most cases the man,

if he is a Yale graduate, will be paying on his full income, and in most cases the woman would pay on half the family income. Now, as I say, I haven't thought through the equity, but I wondered what your rationale was for including the provision "whichever is higher."

(Mr. Tobin) Well, we have women students and we expect to have more in the future. We expect that many of them will avail themselves of the Plan. Suppose we have an old-fashioned woman student who borrows a good bit of money to go to Yale, and then becomes a housewife for the rest of her life. Are we to say that she has no obligation whatsoever because she has zero individual income? That is the kind of problem we have. We think that she contributes to the joint income. She contributes to the household of which she is a member. It is not unreasonable to expect her husband to pay some of the cost of her education as well as his own. He may not even be a borrower himself. He may have gone to Princeton.

Beyond that, once you have a joint income tax return, there is a lot of room for finagling as to which person is actually receiving the income. This is certainly true of non-labor income. For example, with property income you can reshuffle the income between the husband and the wife. If we allowed repayment on a completely individual basis, then we certainly would be giving an incentive for a household to assign all of the non-labor income it could to the person who has no debt.

(Voice) Do you think this Plan will have any effect on alumni giving?

(Mr. Tobin) Are you going to have someone from the Development Office to comment on that?

(Chairman Buesking) We will not have Alumni Fund or Development people on our panels. Although we don't know what the effect of the Plan on alumni contributions will be, we have made some assumptions about the effect. One is that it doesn't change our basic appeal to alumni. Those who are going to give are probably not affected by this Plan very much. They will either not participate in the first place or they will have terminated. Those who are affected by the Plan, who are participating in it, have an obligation that is unconventional instead of conventional.

You have the same problem with people who have conventional loans of sizable amounts. They have an obligation to Yale. We would appeal to them annually to give to Yale. The basis of that appeal is that they didn't pay for the full cost of their education, regardless of the loan. If they are doing better than they did when they first got out, we would like them to contribute back to Yale some portion of the subsidized education they received. I don't think that appeal will change.

The fact that you stretch the obligation over twenty-five or thirty-five years, and that the alumnus starts to view it as a routine payment like the annual $50 contribution to the alumni campaign, may affect alumni giving. But we don't really know. That is one thing we will have to research and find out.

(Voice) Assuming a student borrows $4,000 and makes payments over a period of 27 or 28 years, at the going interest rate, and assuming the median Yale income, what would be the total amount that the student would pay over the term of the loan?

(Chairman Buesking) It is not unlike repayment of a conventional mortgage on a house. He pays back a multiple of what he borrowed. Depending upon how it runs, he may pay two, three or even four times what he initially borrowed. If you look at the tables on conventional mortgages, on loans for your house, you will find you are paying a multiple also.

(Mr. Tobin) You have some papers that answer that question.

(Chairman Buesking) The truth-in-lending statement will give you some examples of what different students with different incomes will pay back.

(Voice) When students opt for the program are they aware that they might have to pay $12,000 or $16,000 back over a period of years?

(Chairman Buesking) The truth-in-lending statement requires that we inform them of this, and in fact we do. The student must sign a document which the people in the office also sign which affirms that they have been briefed about the implications of the Plan.

(Mr. Tobin) If you think of 7 percent compound interest, you are talking about an interest rate which will double your money in ten years, or your debts, and double them again in twenty years. Compound interest is a very powerful thing.

(Voice) But usually your mortgage is not compounded.

(Mr. Tobin) Mortgage interest <u>is</u> compounded on your unpaid balance. Interest is calculated exactly the same way under the Tuition Postponement Plan.

(Voice) In a mortgage, your obligation is figured on the unpaid principal, not on the unpaid gross balance, which is interest on interest, or compound interest.

(Mr. Tobin) No, in a mortgage, interest is compounded on the entire unpaid balance. We use the same procedure for calculating interest under the Tuition Postponement Plan.

(Voice) Has your research indicated what modifications an institution will have to impose if it is predominantly female?

(Chairman Buesking) We have looked at the female population at Yale which is, I think, approximately 20 percent of the total. We have assumed that the female participants will in effect be paying back on one-half of the expected Yale alumni profile for income.

(Voice) I can see you would have to make a major modification if you were a predominantly female institution.

(Chairman Buesking) You would have to study the profile of that institution and also the incomes available in the National Census Report of 1970 to arrive at the proper adjustment.

(Mr. Tobin) I think you would want to make a joint effort with some other institution.

(Voice) What data did you rely upon to project the Yale alumni income over a period of time?

(Mr. Tobin) Well, we used statements that Yale alumni make about their incomes periodically in their reunion reports. Yale gets quite a considerable response in those reports. You can derive an age profile from those reports over a number of years, an age profile of what Yale graduates ten, fifteen, twenty, and twenty-five years after graduation earn on average. These reports provide a probability distribution of incomes of Yale graduates "X" years after graduation, varying from five to thirty-five. So we can get an idea what a typical age profile is for Yale graduates. It is pretty simple.

If you take a snapshot cross-section of Yale graduates, or any other college graduates, you have "Years Out" and "Income," and their relationship is something like the 1971 line of Figure 1 (See page 25). Over time, this full profile shifts up. Compare the 1976 line. Maybe it doesn't go up every particular year, but in normal years it shifts up. That trend is what I was talking about when I referred to the annual rate of increase in alumni income. The increase has been something like 4 percent for college graduates. In the United States as a whole, the figure has been 2.5 percent.

If you follow the income history of a man or woman who graduated from Yale this year, he starts on the 1971 profile but when he becomes five years older, he is on the 1976 profile. So his actual individual profile, also illustrated in Figure 1, reflects both the fact that his income rises as he gets older, and the fact that general income levels in the economy are rising. That is what we tried to estimate from the Alumni reports, with the help of census information on college graduates in general. Then we corrected the standard Yale College profile for other

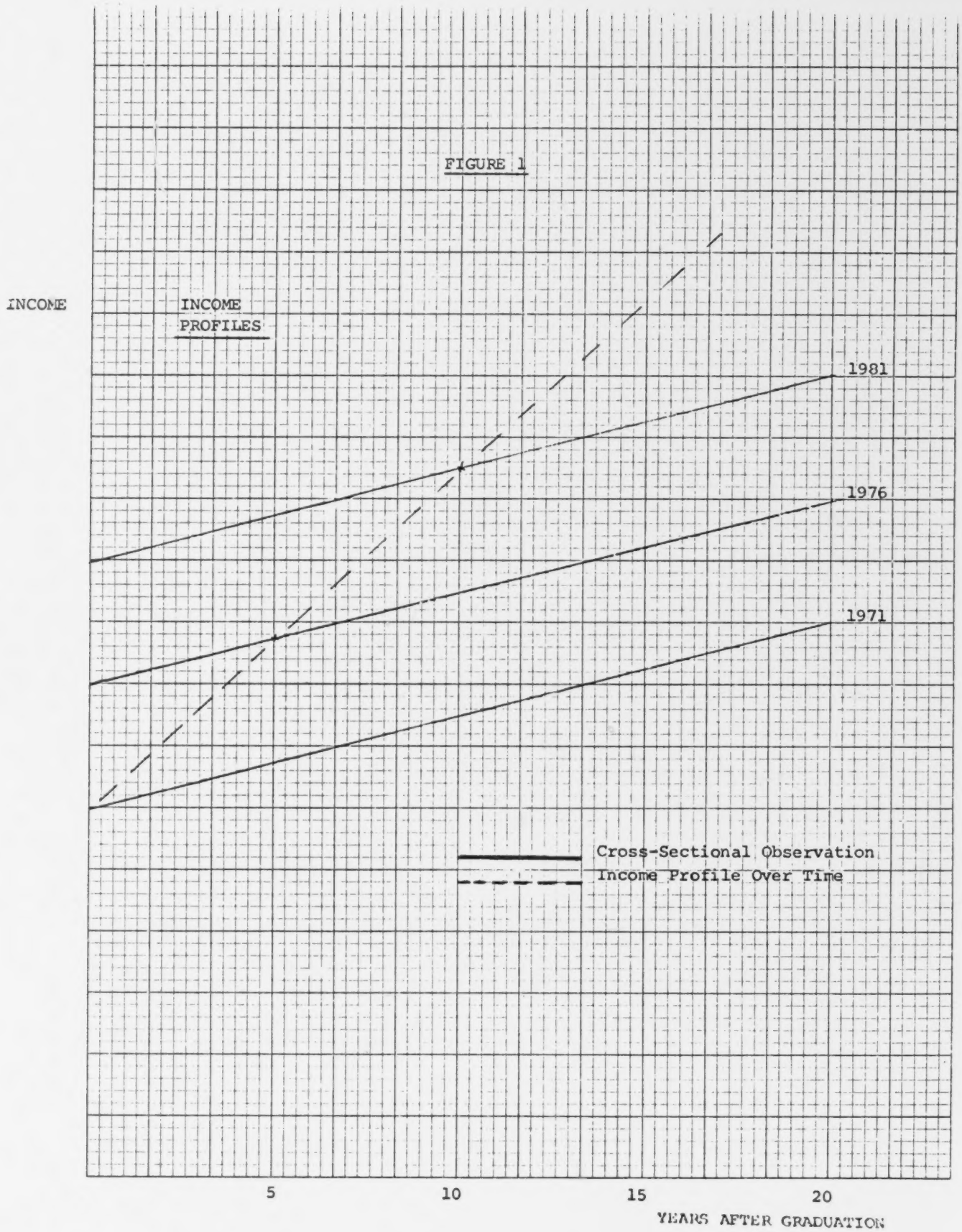


FIGURE 1
INCOME
INCOME PROFILES
1981
1976
1971
Cross-Sectional Observation
Income Profile Over Time
5
10
15
20
YEARS AFTER GRADUATION

schools in the university, graduate and professional schools. Information on the incomes of our law graduates and medical graduates is not as good as the information on our Yale College graduates, but we arrived at some kind of a coefficient. Say a Law School alumnus has a Yale College profile times another factor. The Law factor is bigger than one, and the Divinity factor is less than one. That is the sort of estimate we made.

Incidentally, we made these calculations on the basis of earned income. We did not expect that the students who have inherited wealth are going to be in this Plan. We didn't count their incomes from inherited wealth. We don't count on receiving anything from that.

(Voice) May I make a comment? The way you calculate the future income has an upward bias. The Yale graduate in 1940 was different from the 1970 graduate. And only the successful people usually report in the alumni report. The higher income graduate will report that he makes a lot of money; if one doesn't make much money, he is not going to tell you.

(Chairman Buesking) There may be some truth to that. We did clip off the top of the profiles in the data basis that we used. There will be talk about this point this afternoon from our economic research panel. We did discard the upper end of the distribution for that very reason and the research panel can go into how we did discard it. I might add that in normalizing the income profiles, incomes were pulled down somewhat from the actual data. I don't recall how much.

(Mr. Tobin) These reports may have the bias you mentioned. Lower-income individuals may not reply as frequently as higher-income individuals. However, we were talking about reports in which the response rate is 75 to 80 percent. It is very high. They are anonymous reports. The individual is not identified with the income reported. It has a broad occupational coverage, so I am not sure that the bias is that important.

Also, with regard to the mix of students and the upward bias, the incidence of students of high inherited wealth in Yale classes today is no doubt much less than it was in 1940. But we weren't counting on their property incomes in making these calculations. There still may be some upward bias, but we allowed some leeway. In the Plan we used a conservative three point margin between our borrowing rate and the rate of growth of income. We also have a buffer of eight or nine years between the expected date of group termination and the thirty-five years. So if we are wrong, we can be wrong by these amounts and everything would still turn out right.

Finally, on the general basis of risk, I would like to make an observation that goes back to what I was saying at the very beginning in regard to the need to capture more income from stu-

dents for meeting financial problems of universities. If you raise your tuition and fees more than you would have if you didn't have a plan like this available, then you must remember that the university receives immediately all the increased tuition and fees from those individuals who don't participate in the Plan, monies which it wouldn't have received otherwise.

So the university may improve its financial position even though it turns out later that, technically, the Plan didn't pay off. In calculating the value of the Plan to the university, you must really think of how much more the Plan has enabled you to charge students who are perfectly able and willing to pay more to attend your institution, but who are not doing so now because of the absence of any such plan.

(Chairman Buesking) Thank you very much, Jim.

I am reminded of the joke I heard at the alumni convocation for our Development Fund. It seems that a Spanish galleon had a hard day at sea, and the rowers were totally exhausted, having been exhorted with physical and other means during the day. The overseer came down to tell them he had some good and some bad newsfor them. First, they were being given their monthly rum ration that day as a reward for the day's performance. That was the good news. But then the overseer said, "After you finish your grog, there's some bad news. You've had such an excellent day today that now the captain wants to go water skiing".

You may have to exhort your groups to do better if times turn worse.

PANEL ON ECONOMIC RESEARCH

Kenneth E. Codlin
Director of Business Affairs for
Computation
Yale University

Richard C. Ferguson
Director of Financial Planning
Yale University

Louis Silversin
Department of Economics
Yale University

David Storrs
Associate Director for Research, TPO
Yale University

(Chairman Buesking) May I have your attention, please? We would like to get started for the afternoon. There was one thing I failed to do this morning. If in the back of the room you do not hear us well, please raise your hand so we will know. If you still can't hear, we will use the microphone, although with this small group we hope that we do not have to turn it on to be able to communicate.

The panel we have is, quite literally, the first group of people who worked on this in an economic sense. Dave Storrs, who is our Associate Director for Research and Evaluation, is going to moderate the panel. Lou Silversin is a colleague of Jim Tobin, and did much of the work on the income profiles that we used. Richard Ferguson and Kenneth Codlin are from my staff. Richard works in our long-range planning area and Ken in our computation area. They developed some of the original computer models that were used to conduct our analysis and run various simulations and sensitivity tests that were necessary to insure that we had a viable plan that we could go forward with.

As I said, this was the first step in the research we carried out, with the legal and financial work coming later. But we had to assure ourselves about at least this piece of it before we proceeded.

So without further ado, I will turn it over to Dave Storrs to start. They will be using view graphs on the screen to make

some of their points. You will see a number of curves. Don't hesitate to interrupt them if you do not follow what is taking place.

At the completion of that, we will have a short coffee break and rest period. I will now turn it over to Dave Storrs.

(Mr. Storrs) What we are going to do is to start with the computer model we developed at Yale. Then we will look at the implications of the program we got out of the model, and some of the various sensitivity analyses that we did, sensitivity to incomes, insurance rates, mortality, this kind of problem, the credit problems, bad debt problems. But first we are going to look at the development of the computer modeling of the entire program.

Rich Ferguson will discuss that.

(Mr. Ferguson) First I would like to mention that there are really two types of models used for the economic analysis of this program. The first is a present value type of analysis to determine the economic viability of the Plan, that is, to see whether or not over some period of time we in fact could recover the amount that would be deferred by the students plus all of our costs.

These models were done basically by Jim Tobin and Lou Silversin. Perhaps a little bit later Lou can comment directly on those models if you have questions about them.

The second type of model that we used was what I prefer to call a liquidity simulation model. This was given a particular configuration of a tuition postponement program, specifically, what would be the capital financing requirement associated with the program. This is somewhat different than the viability question. We could have a program that breaks even but it may require several hundred million dollars to capitalize. It is a big difference if you need lots of money or not too much money. Particularly it makes a difference for us in terms of what kinds of capital risks the university is going to take in the program.

So what I would like to do right now is speak to this simulation model that we have used for looking at the liquidity requirements. One point first on technique: I don't know how many of you are familiar with simulation or not. But very briefly, what we are trying to do here is project the cash flow requirements that we might expect from a program with a particular set of characteristics. By this I mean a particular repayment rate, particular buy-out criterion, a group termination rule, this kind of thing.

The program has three basic components that affect the financing requirement. One is the total amount deferred each year. The second one is annual repayments made by participants and the third component is operating costs of the program. The net effect of these three components will give us our total capital requirements.

In the model, total amount deferred is a function of the number of participants per school and the amount deferred per participant. The number of participants per school is input data, and Dave will talk later about many of the assumptions that lie behind the analysis. The amount deferred per participant is in part a function of the amount we would let students defer. Also it is a function of the amount individuals choose to take, since they can take less than the maximum.

In the context of this model, there are four factors which will influence the amount of total repayment. The first is what we make the repayment rate and the minimum repayment each year. If you will note, this is per unit deferred. The second element is the number of units deferred. I don't recall Jim Tobin this morning discussing this concept of a unit deferral.

If you look at analyses that are projected over a long time horizon, say, fifty, sixty years, one of the things that happens is that if you just state the repayment rate as per dollar deferred, or per thousand dollars deferred, you get a compounding effect upon the repayment. This arises because of two things: (1) Over the long haul we expect tuition and fees to increase. The fellow who defers $800 today is deferring something less than 20 percent of his room, board, tuition and fees. Perhaps twenty years from now a guy who defers 20 percent of his room, board and tuition will be deferring something like $1,400 or $1,500 because of the fact that we expect room and board and tuition to go up at something like the growth in per capita incomes over the long haul.

Thus, if a guy were to defer 20 percent today, he would defer $800 and pay, I guess, .32 percent of his income. If a guy twenty years from now deferred $1,400 with the same repayment rate of four-tenths of a percent per $1,000, he would pay .56 percent of his income for the same fraction of his tuition. That is one element.

The second element is that, over time, as Jim pointed out this morning, we expect incomes at any particular age level to also be growing. So the fellow who defers the same proportional amount of his bill twenty years from now will be paying .56 percent of a larger income, while a fellow who defers his payment today pays .32 percent of a smaller income.

This idea is somewhat complex. I think we have some papers from our previous seminar which go into this in more detail. Let me leave it at that for the moment. You do get a compounding effect here, both in the amounts deferred and the growth of the income. So you have to deflate by the growth in income. This is why we use the concept of unit deferrals in our model and not simply dollar amounts.

The third repayment element is the total annual incomes of participants. I think Jim did a good job this morning on the cross-section of the income profile.

The fourth factor is the number of repayment periods. There was conversation before as to what effect it has. Here we have a maximum of thirty-five years. There are two ways in which a person might pay for a shorter period of time. One is group termination; the second, individual termination. Both of these are included in this analysis.

Then we considered three problem categories. One is default, which is normal default. The way the model was developed, we assumed if there were defaults, they all happened in the first year, before we had received any payments. We were not too sophisticated in that sense, but that is a conservative assumption. The other two, mortality and morbidity -- well, mortality, we just degraded the income streams. If a participant were to die, we assumed there is no more cash flow from his estate, in other words, there are no claims against his estate. In fact, we do recover some insurance, so again this is a conservative assumption. With respect to morbidity, if an individual becomes disabled, we assume it is total disability, and that he will have no future income, at least relevant to this program. Those are the several factors that affect the repayments in our simulation.

The operating costs included here have just two elements. One is interest expense, which is handled in the way that Jim mentioned this morning, at the rate of growth of incomes plus 3 percent. As Jim mentioned, that 3 percent is a conservative estimate. In fact, perhaps a more accurate measure would be the rate of inflation rather than income growth plus 3 percent.

Considering the administrative costs, we haven't been too sophisticated. We assume that this is a fixed cost operation, at least fixed cost in real terms, that it is about a $100,000 a year operation to administer the program. So each year we just inflate that $100,000 by the rate of inflation to get the operating cost.

Of course, this assumes that as the population grows larger, we must become more productive to be able to service a larger number of contracts with the same organization.

Of the many variables included in the program, we can divide them into two sets. One is those variables which are in fact decision variables, items we have the opportunity to select a value for. These go back over what we talked about before, the maximum amount of individual deferral, repayment rate per unit deferred, minimum repayment per unit deferred, definition of income, maximum number of repayment periods, group termination and early individual termination criteria.

The second set of variables I guess would be called environmental parameters. These are factors over which we do not have control, but which significantly influence the results of our analysis. We have to assume values for these parameters. Dave will talk a little bit more at length about the analysis you might want to do to test those assumptions that we have made. Here we have the number of participants per school and the actual deferred amounts. This is in the sense that we have said, "Yale College undergraduates can defer up to $800 this year." But the question is, do they defer $800 or something less than that? That is their choice, not ours.

The annual incomes of the participants, default rates, morbidity, mortality, and interest rates and inflation are a so included.

What I will do now is turn it back over to Dave. He will give you a few examples of how this simulation model has been used to analyze some particular cases, and the type of testing that has been done.

(Mr. Storrs) Thank you, Rich. At this point we had two tools that would tell us, one, whether the Plan would break even before the maximum term; and, two, how much cash we needed to finance the program. We used them both ways. I'd like to back up a little bit, though, and quickly look at the overall rationale for the Plan, which was to reduce the annual payment the person had to make in his low earning years just after he had gotten out of college.

(Exhibit 1)

Here is a straight conventional loan with equal yearly payments. If you want to amortize a $5,000, 7 percent loan in five years you have to pay about $1,200 a year. If you spread it over, let's say, ten years, you would be paying about $720 per year. You can just look up the debt in a mortgage book and see how much you have to pay per year. What we did was to try to further reduce the payment. First we increased the term from ten years, where the student pays $720 per year, to twenty-five years, where he pays about $420 per year. That cuts his annual repayment by something like 40 percent.

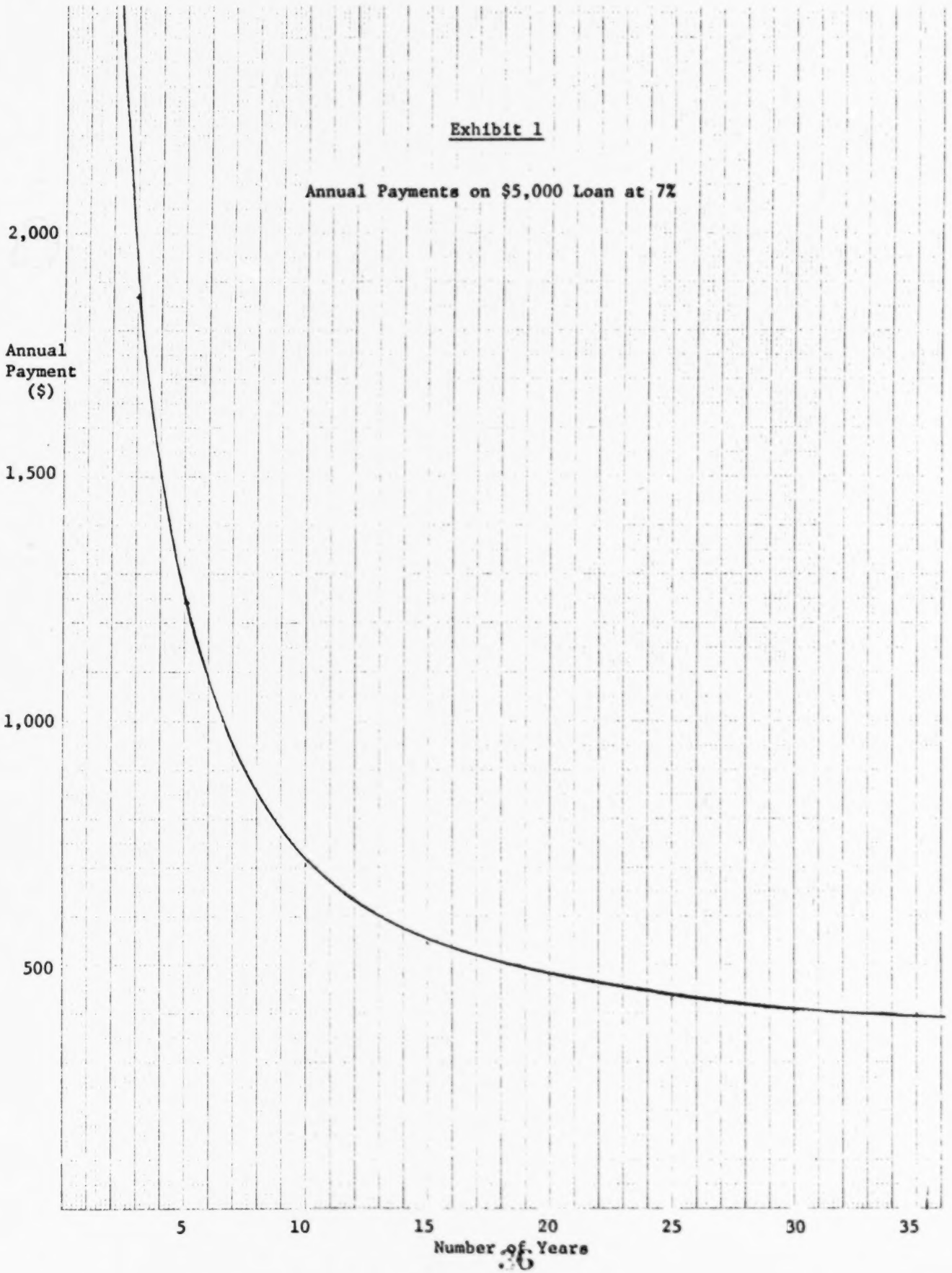


Exhibit 1
Annual Payments on $5,000 Loan at 7%
2,000
Annual Payment ($)
1,500
1,000
500
5
10
15
20
25
30
35
Number of Years

Remember, our object is to keep the payments low when his income is low, keep the payments correlated with his ability to pay.

(Exhibit 2)

The next thing we did, we moved to a TPO Plan where, instead of paying a constant $420, he starts paying about $210 a year. Here we have cut his payment another 50 percent.

We have gone from a ten-year conventional loan to a twenty-five year TPO loan. We have cut his annual payments by something like 70 percent. This is in his early earnings years. What he is paying in the early years is not even covering the interest on his loan. It is not until about the eighth repayment year that he starts even covering the interest that we are paying each year on his loan. Since there is no free lunch, in the later years he ends up paying much more each year than he would have with a conventional loan.

But either of these two combinations, that TPO curve of payments versus the constant payments of the twenty-five year conventional loan, is an equivalent stream of payments in financial terms. They are each 7 percent loans, and in that sense "cost" the same amount.

(Exhibit 3)

We might want a fifteen year loan. There a conventional loan would require payments of $560 a year. With a TPO loan he would pay about $350 per year in the beginning so his advantage isn't so large as with a twenty-five year plan. But again, these two are equivalent financial streams; they are both 7 percent loans. The total dollars repaid is greater with the TPO loan, but the borrower has more of the loan outstanding at any given moment. The extra dollars he pays are the interest on a larger outstanding balance, or the price for deferring the bulk of payments until the last few years. Since this extra interest is what he could have earned himself, the cost, in terms of the effective interest rate, is the same with either loan.

This is the way we viewed the term and why we made it a long term program. Now looking at the buy-out conditions, we did a similar analysis. If we are going to lend $1,000 to students, to break even we need to get back not $1,000 but $1,000 plus the interest we have paid Chemical Bank (or could have gained ourselves if the funds are internally supplied). In economic language, we must get back a present value of $1,000 which we calculate by discounting the payments students make by our cost of borrowing. So the criterion for group termination is easy; it occurs when all our loans have been repaid and our interest costs reimbursed, or when the present value of payments equals the original amount loaned. In group termination we are not concerned with who pays what, just with the present value of repayments.

Exhibit 2

Annual Payments on 25-year, $5,000 loan at 7%
Conventional vs. TPO

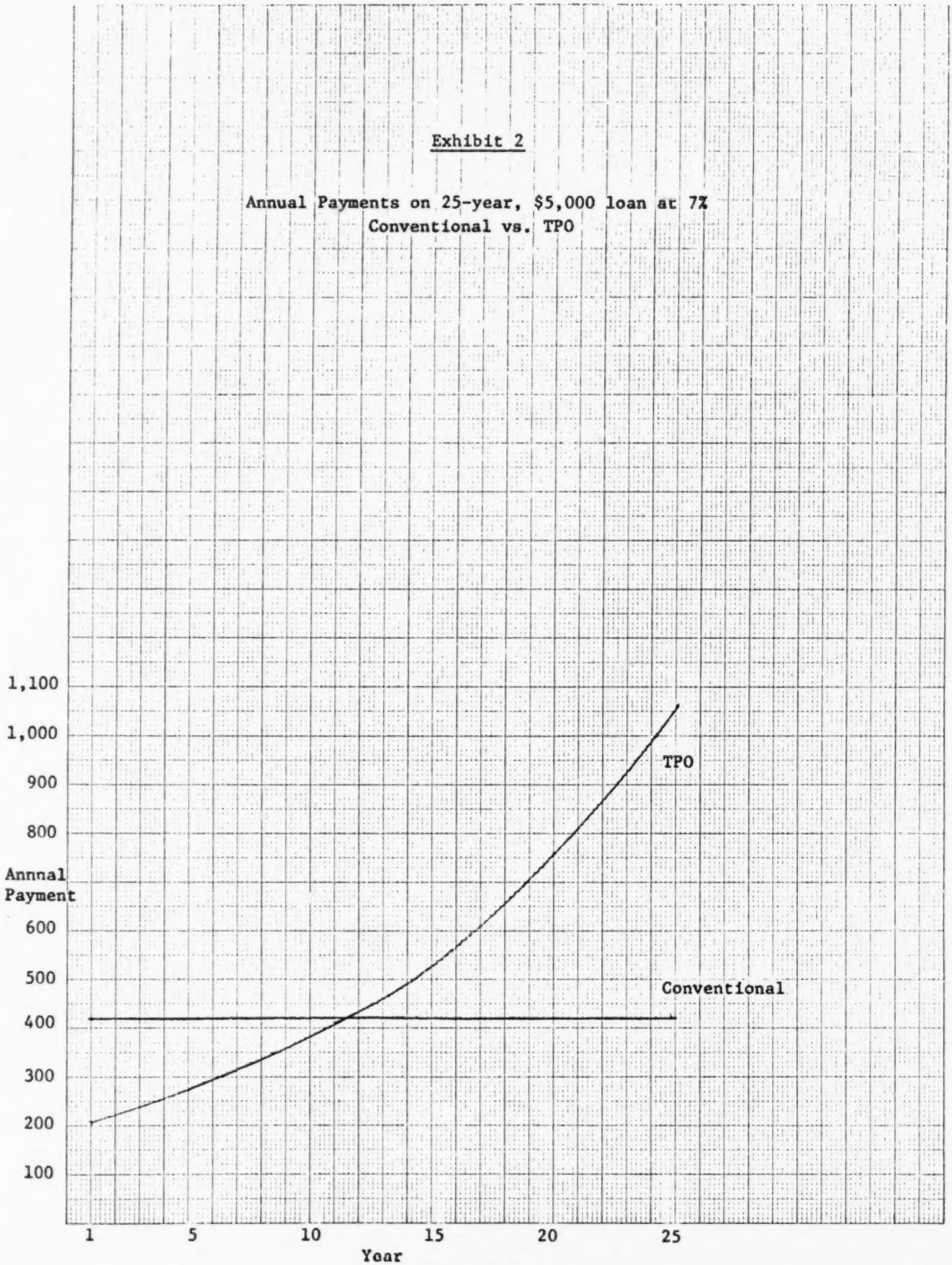
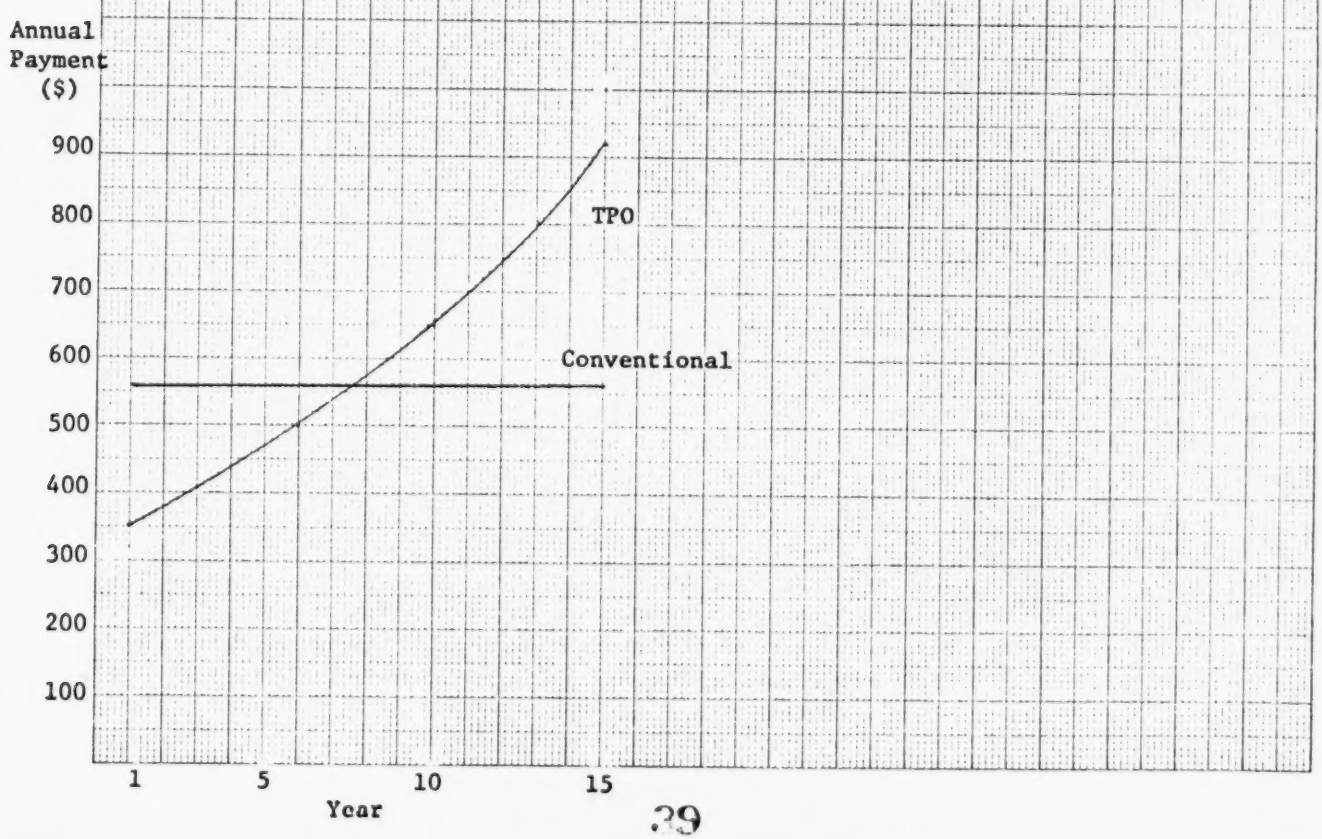


Exhibit 3

Annual Payments on 15-year, $5,000 loan at 7%
Conventional vs. TPO



But when we set a buy-out rule, we are concerned with which members of a group do the paying.

(Exhibit 4)

Here, if a student borrowing $1,000 has no income at all and paid just the minimum of $29 per year, he would pay back the original $1,000 over thirty-five years, but the present value of his payments would be only $380. He is paying back $620 less than the real cost of his loan. Since the Plan as a whole is not subsidized, this is made up for by individuals with higher than average incomes who pay more than the cost of their loan, up to a present value of $1,500. Another way of saying this is that the individual with no income over his career pays back only 38 percent of the cost of his loan, while the high income individual pays 150 percent of the cost of his loan. These are the two extremes. The minimum payment sets the lower limit, and early individual termination, by its definition, releases an individual whenever he has paid back 50 percent more than his loan cost.

To have the group as a whole repay the aggregate of its loans, this shaded area on the top must equal this shaded ares on the bottom. This represents the subsidy given to individuals at different income levels, plotted on the horizontal axis. You can see that low income individuals are heavily subsidized, an average income participant would pay back just what his loan cost Yale and therefore not be subsidized, and higher income individuals would put in up to 50 percent subsidy.

Interestingly enough, we don't care when the high income individual buys out. If he buys out early the 50 percent premium is smaller but it is only discounted a few years. If he buys out near the end the 50 percent premium is much larger but it must be discounted for a greater period of time. The reverse is also true; there is no financial advantage to buying out early, assuming the borrower can invest at 7 percent. It is very important to this program, due to the term being so long, to think in terms of present value. Looking at just the dollar totals is very misleading.

An interesting mirror image to this graph is to look at percentage of income paid over a career. For TPO, we have something like this.

(Exhibit 5)

Everyone pays .4 percent of his income per $1,000 borrowed, except for those individuals who buy-out due to their high incomes. They pay .4 percent while they are in the Plan and nothing after buy-out, so their percentage would follow this curve. An individual who had a very high income and bought out in year fifteen, for example, would pay .4 percent for fifteen years and nothing for ten years, for an average (roughly) of .24 percent.

Exhibit 4

Present Value of Payments by Income Level

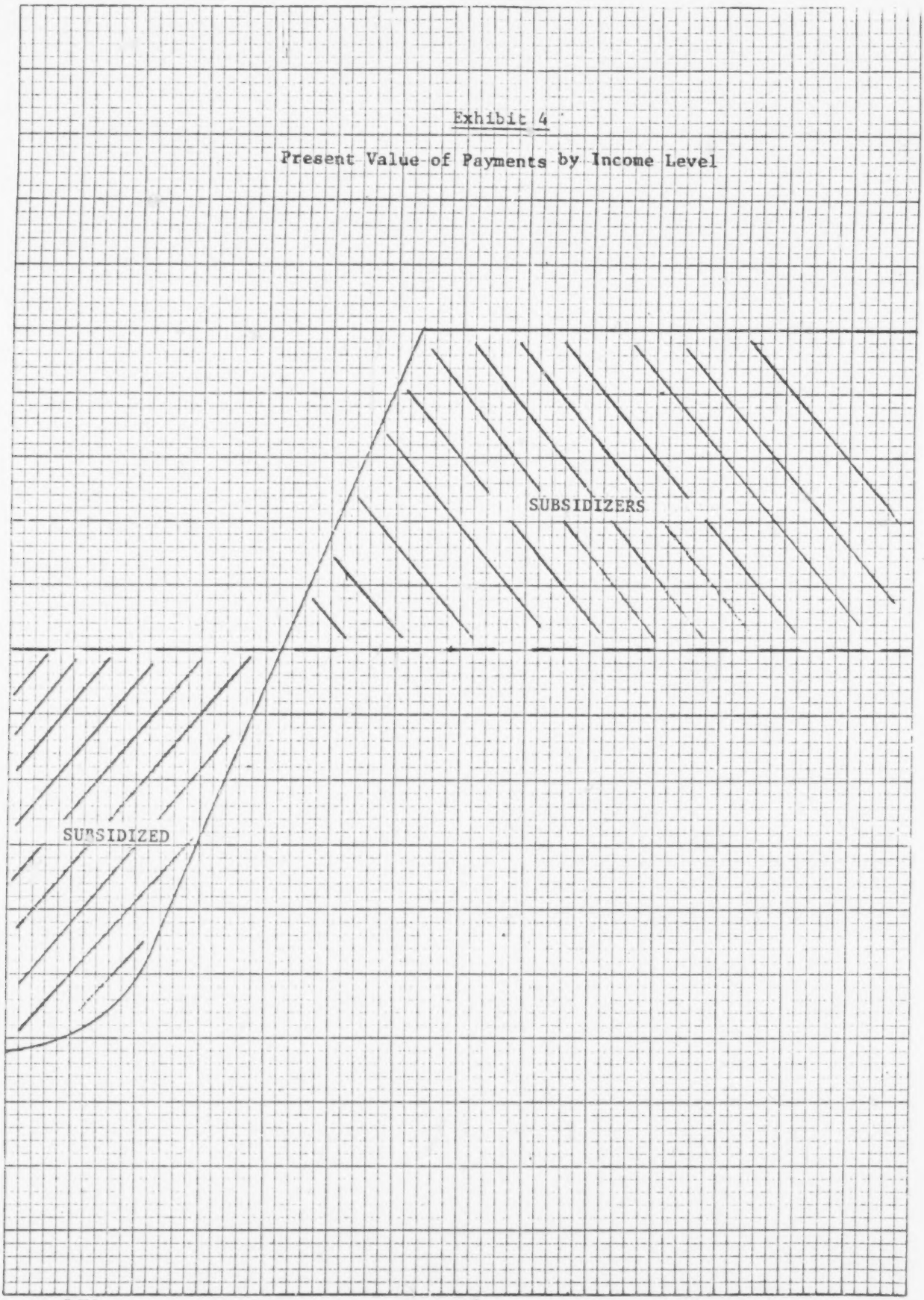
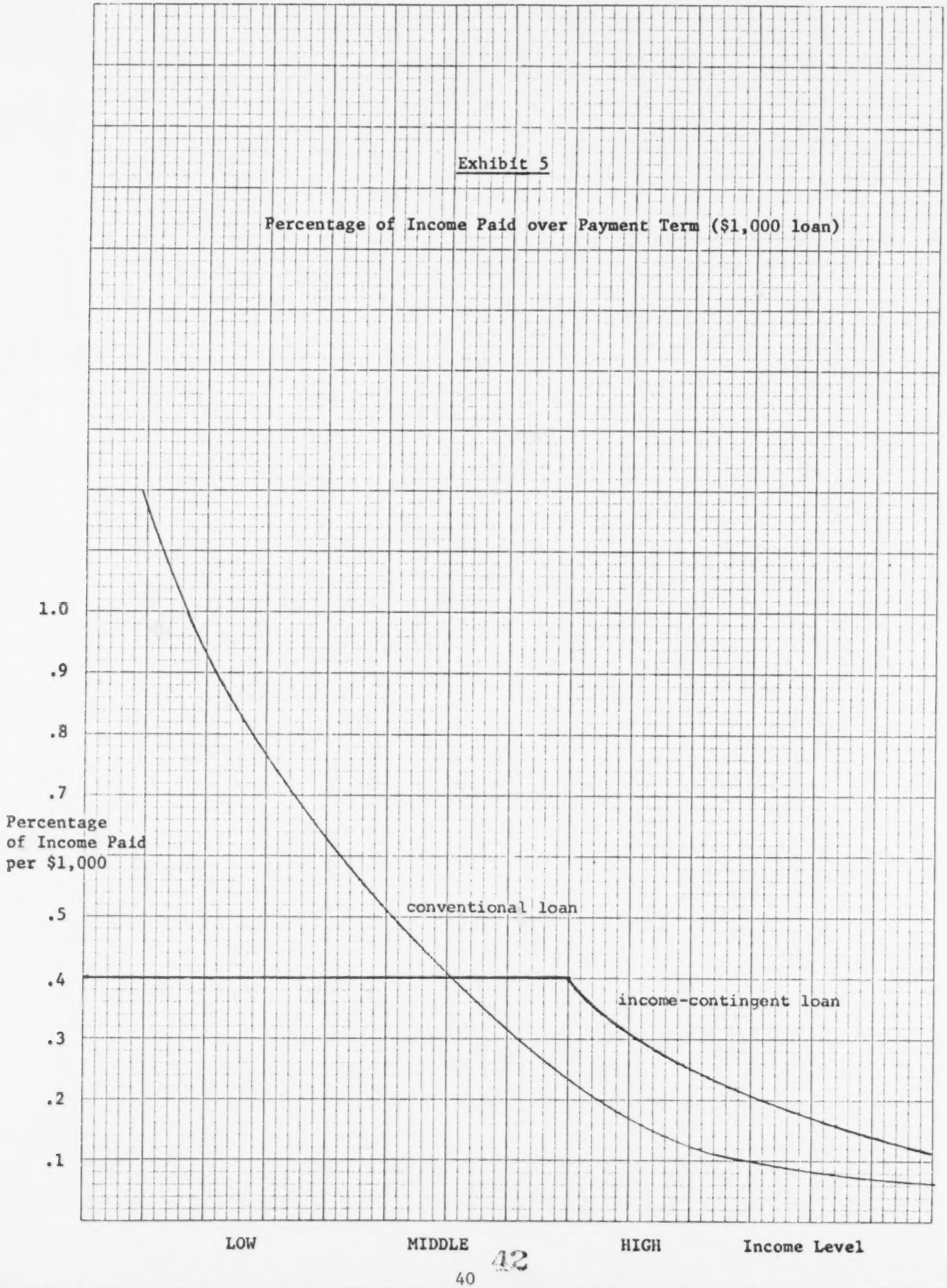


Exhibit 5

Percentage of Income Paid over Payment Term ($1,000 loan)



This is very different from a conventional loan, where the percentage of income paid would be inversely proportional to the income. A low income person, for instance, would pay a much larger part of his income with a conventional loan, and a high income person less. In economic terms the conventional loan is regressive throughout; the income contingent loan is proportional with respect to income up to the buy-out amount and regressive thereafter.

To the extent that the conventional loan is more regressive, it hits low income borrowers the hardest. We worried about saddling this group with debts that take a large share of their income. To the extent they are better off under TPO by knowing their payments will never be more than a certain part of their income they should prefer this kind of plan.

In theory, you shouldn't have any early termination; everyone should pay .4 percent until the group as a whole has terminated. This would be a perfectly proportional loan plan where everyone's burden, measured as a percentage of income, was equal. If someone were tremendously successful, for whatever reason, he would share the fruits of that success much more than under our rule where his liability automatically terminates at 150 percent.

I would say we created early termination mainly to give the Plan greater acceptance among students and their parents. Some simply want to get out of debt at the first opportunity and we felt we had to provide them a mechanism to buy-out. Also, in an environment where some students will wonder why they should pay back more than the amount borrowed - "after all, it doesn't cost Yale anything to lend me money" - we felt it was politically infeasible not to have an upper limit on liability.

I should mention that our way of limiting payments is not the only way. We considered, and then rejected, a system in which the borrower was out whenever his payments would have discharged his loan at some high interest rate. Our system has him out on paying back 150 percent of his borrowed amount at Yale's 7 percent; the other way would be to discharge him on paying 100 percent of his loan at, let's say, 12 percent. This is the top line of this graph.

(Exhibit 6)

This is called an "exit interest rate" system as opposed to our "multiple of principal" system. Unfortunately, it's not quite so equitable because, as you can see, it hits the middle income people the hardest. People who have a high income buy-out early and make a small contribution to the subsidy pool. The largest subsidy comes from those with incomes just above average, the group which just buys out at the end and pays the penalty rate of interest - the 12 percent less Yale's 7 percent equals a 5 percent penalty interest rate - for the longest time.

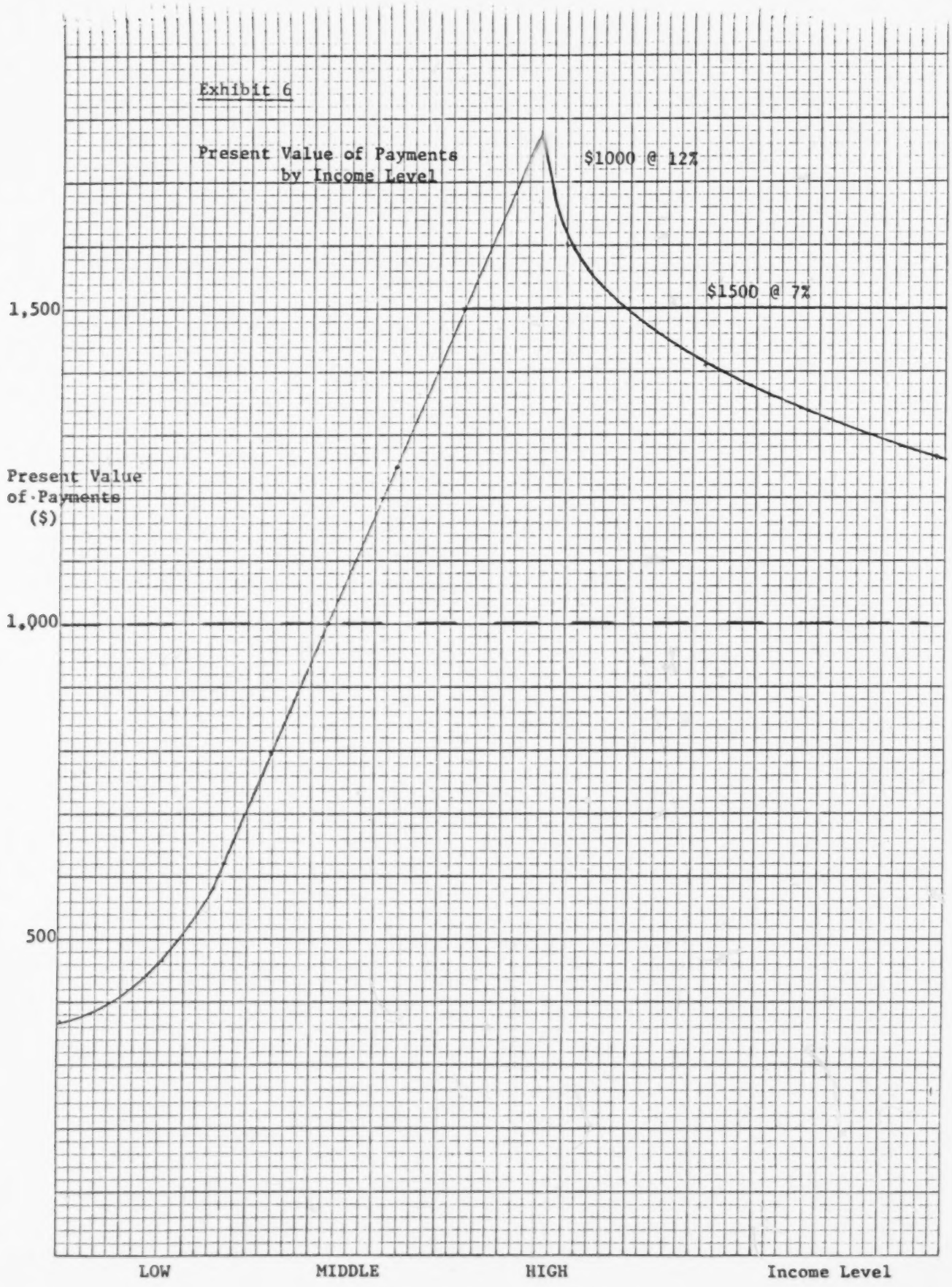


Exhibit 6
Present Value of Payments by Income Level
$1000 @ 12%
$1500 @ 7%
1,500
Present Value of Payments ($)
1,000
500
LOW
MIDDLE
HIGH
Income Level

So if we use a multiple of principal system and consider only the three parameters of repayment rate, buy-out percentage and expected term, we get a whole family of plans, each of which is viable, and each of which is financially strong. We might get something like this set of curves.

(Exhibit 7)

Here is the current TPO Plan. You contract at .4 percent of your income. You buy-out whenever you have paid in 50 percent more than your loan cost. The expected term is twenty-five years. That is the expected term until group termination, when everyone is released. You could just as well say you get out whenever you have paid 100 percent more than your cost, that is, double the cost of your loan, with a repayment rate of about three-tenths of a percent. The people who end up making low incomes would prefer that plan. You can do the same thing for some other term, say 15 years, by paying .65 percent of income and 50 percent buy-out premium. You can get an infinite combination of these three parameters, the repayment rate, the buy-out percentage, and expected term. These three are interrelated. You can't change one without affecting the other two.

(Voice) Do you say these curves are related to a conventional loan at 12 percent?

(Mr. Storrs) No. What I have said is that you could have a rule which said that if your payments would ever have paid off a 12 percent loan, then you are out. That might be an alternative rule to the one that we use. I didn't mean to suggest that we are using that rule. We are not.

(Voice) All right. I understand.

(Mr. Storrs) This has been suggested by the Ford Foundation group, and we don't think it is quite as equitable, because it falls most heavily on the middle earners.

So now we have a set of possible plans. We have picked a combination which we feel is appropriate for TPO. We have picked a combination that will let a student take on a large amount of debt without it being a large burden on his income which a conventional loan might be. This is the .4 percent tax rate, the 150 percent buy-out and the twenty-five year probable term.

You can see that the particular conditions of the Yale Plan are by no means critical. The important thing is that a change in any one of three parameters of <u>repayment rate</u>, <u>term</u> and <u>buy-out rate</u> must be balanced by a change in one or both of the other.

The next thing to look at is the credit requirement that we might have from this kind of Plan.

(Exhibit 8)

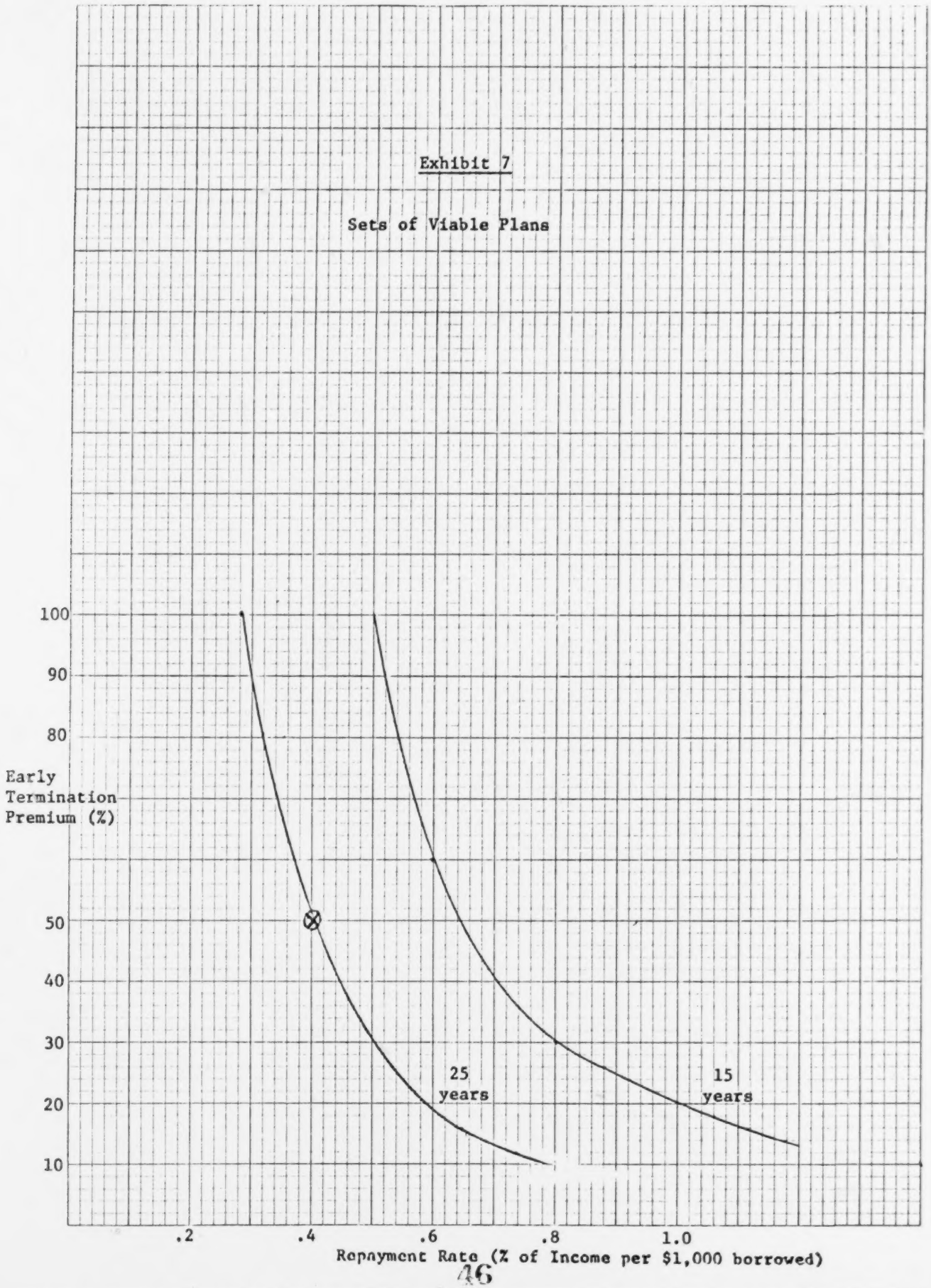


Exhibit 7
Sets of Viable Plans
100
90
80
Early
Termination
Premium (%)
50
40
30
20
10
25
years
15
years
.2
.4
.6
.8
1.0
Repayment Rate (% of Income per $1,000 borrowed)

Exhibit 8

Participation Projection

Percentage Participation by Class	1971-72	1972-73	1973-74	1974-75
Freshmen	32%	32%	32%	32%
Sophomore	21%	32%	32%	32%
Junior	20%	21%	32%	32%
Senior	16%	20%	21%	32%
All Yale	23%	27%	29%	32%
Number Participants	1,057	1,243	1,373	1,495
Amount Deferred per Student	$704	$704	$704	$704
Total YC Amount Deferred	$744,000	$875,000	$967,000	$1,052,000
Graduate and Professional Schools	$235,000	$305,000	$340,000	$370,000
Total Deferrals	$979,000	$1,180,000	$1,307,000	$1,422,000

Assumptions:

1) No new participants second term, 1971-72.

2) Present participants take no new loans second term, 1971-72.

3) Entering freshmen continue at 32% participation.

4) Average deferral remains at $704.

5) Graduate and Professional participation at level of present 1974 Graduate, Professional students.

Here is the participation that we have right now in this column, 1971-72. If we assume that freshman participation stays at 32 percent, then by 1974 we will have graduated these top three classes and replaced them with new freshmen, achieving equilibrium at 32 percent of the undergraduates.

If we assume everyone defers the same amount they are deferring this year, just slightly over $700, that no one borrows next term, and that graduate and professional deferrals follow the same pattern, then we end up with total deferrals something along these lines, starting at slightly under a million dollars and increasing to about a million and a half dollars. Well, in fact that is not going to happen.

(Exhibit 9)

You can see the actual demands for funds will be much higher. For one thing, there are going to be borrowers next term. Also, in future years, if charges continue to increase, more students will be forced to borrow somewhere. Some of these students will do their borrowing through us. Others will go to a state loan program, federal loan program or a bank. Now, we might discuss some of the numbers, but the general trend is pretty clear. With 60 percent of the undergraduates at Yale requesting aid, and with some non-aid students participating, we will reach something like half the Yale College population in about four or five years.

The Yale charge is going up also. Let's assume $300 a year, and take a constant percentage of that, giving the amounts that are going to be deferred. The average will rise to $1,600 in just four years.

With more students participating and larger eligible amounts, you see what happens to the borrowed amounts. Yale College goes from a little under $1,000,000 to almost $4,000,000 in four years. The Professional Schools slightly more than double. Our yearly deferrals rise in four years from $1.2 million to $4.4 million.

(Exhibit 10)

Now if we project two more years of borrowing with the same $1,700 limit and participation slightly higher, we have a cash flow that looks like this over six years. Since most students haven't even graduated yet, we are getting little cash inflow through repayments, only four and a half million dollars of annual deferrals and 7 percent interest on the accumulated debt. Very quickly our total debt increases to about $25 million.

(Exhibit 11)

Now, if we stop the program in 1976 - just abruptly cut it off - our debt position over time would follow this top curve. You can see that it takes about 14 years, even with no new loans,

Exhibit 9

Participation Analysis

Percentage Participation by Class

	1971-72	1972-73	1973-74	1974-75
Freshmen	38%	42%	46%	51%
Sophomore	26%	42%	46%	51%
Junior	22%	29%	46%	51%
Senior	18%	25%	32%	51%
All Yale	26%	35%	43%	51%
Number of Participants	1,238	1,633	1,994	2,383
Yale Charge	$4,400	$4,700	$5,000	$5,300
Borrowing Limit	$800	$1,100	$1,400	$1,700
Amount Deferred per Student	$755	$1,040	$1,320	$1,600
Total YC Amount Deferred	$935,000	$1,698,000	$2,632,000	$3,813,000
Professional and Graduate Schools	$250,000	$352,000	$449,000	$550,000
Total	$1,185,000	$2,050,000	$3,081,000	$4,363,000

Assumptions:

1) New participants join in second term 1971-72.

2) Present participants increase 1971-72 loans as follows:

80%	$800
5%	700
5%	600
10%	500

3) Defer constant percentage (94%) of eligible amount.

4) Graduate, Professional Schools participation increases at one-half the rate of Yale College.

Exhibit 10

Cash Flow - Six Year Program

	New Loans (000)	Payments (000)	Cumulative Loans Less Repayments (000)	Cumulative Yale Debt (000)
1971	$1,185	0	$1,185	$1,268
1972	2,050	4	3,321	3,457
1973	3,081	15	6,523	6,980
1974	4,363	40	11,303	12,094
1975	4,524	80	16,538	17,696
1976	4,603	112	22,187	23,740

Assumptions:

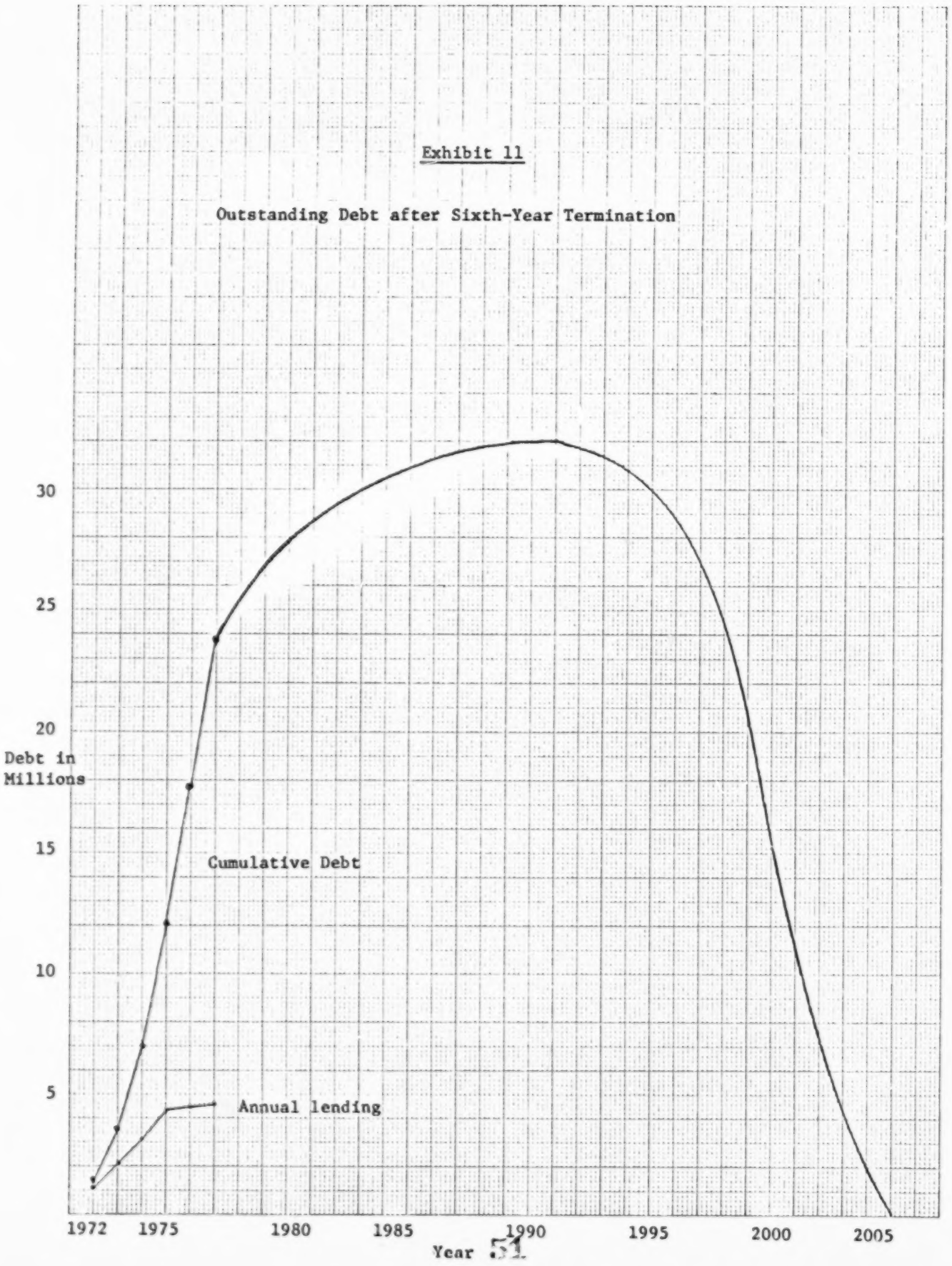
1) Participation as projected.

2) 7% interest rate.

3) 1974 on maximum deferral equals $1,700.

Exhibit 11

Outstanding Debt after Sixth-Year Termination



for our debt to begin falling. Until then, interest payments that Yale is making to Chemical Bank are greater than the repayments we're getting from students. And then, over the next 10 or 12 years, payments come in very fast because they are all near their peak earning years and their incomes are high.

(Exhibit 12)

On this graph is a twenty-five year conventional loan just to show you the impact of some of these changes. Here, instead of twenty-five year TPO loans, we could finance all of these credits or deferrals by twenty-five year conventional loans, and our Yale debt would follow this line.

Or you could change the term, keeping the loan income-contingent. The bottom curve is our debt if we're using a fifteen-year postponement plan, with faster repayments from students. Again, this is a plan which terminates new lending after the sixth year. That will give you an idea of how the credit demands are influenced by the kind of instrument you are using.

(Exhibit 13)

Now, we're hoping not to stop the program after six years, but to keep it going. This is a graph of outstanding debt for an ongoing program, where we lend four and a half million dollars indefinitely into the future. As you can see, we reach equilibrium on the twenty-five year plan at about $125,000,000. That is the size loan fund that would continue to lend $4,500,000 every year. A twenty-five year conventional loan fund would have to be about $65 million, and a fifteen year income-contingent TPO would require a loan fund of about $40 million. We would be able to lend about three times as much on the fifteen year plan, but that might be a disadvantage to the students who would prefer a longer term plan.

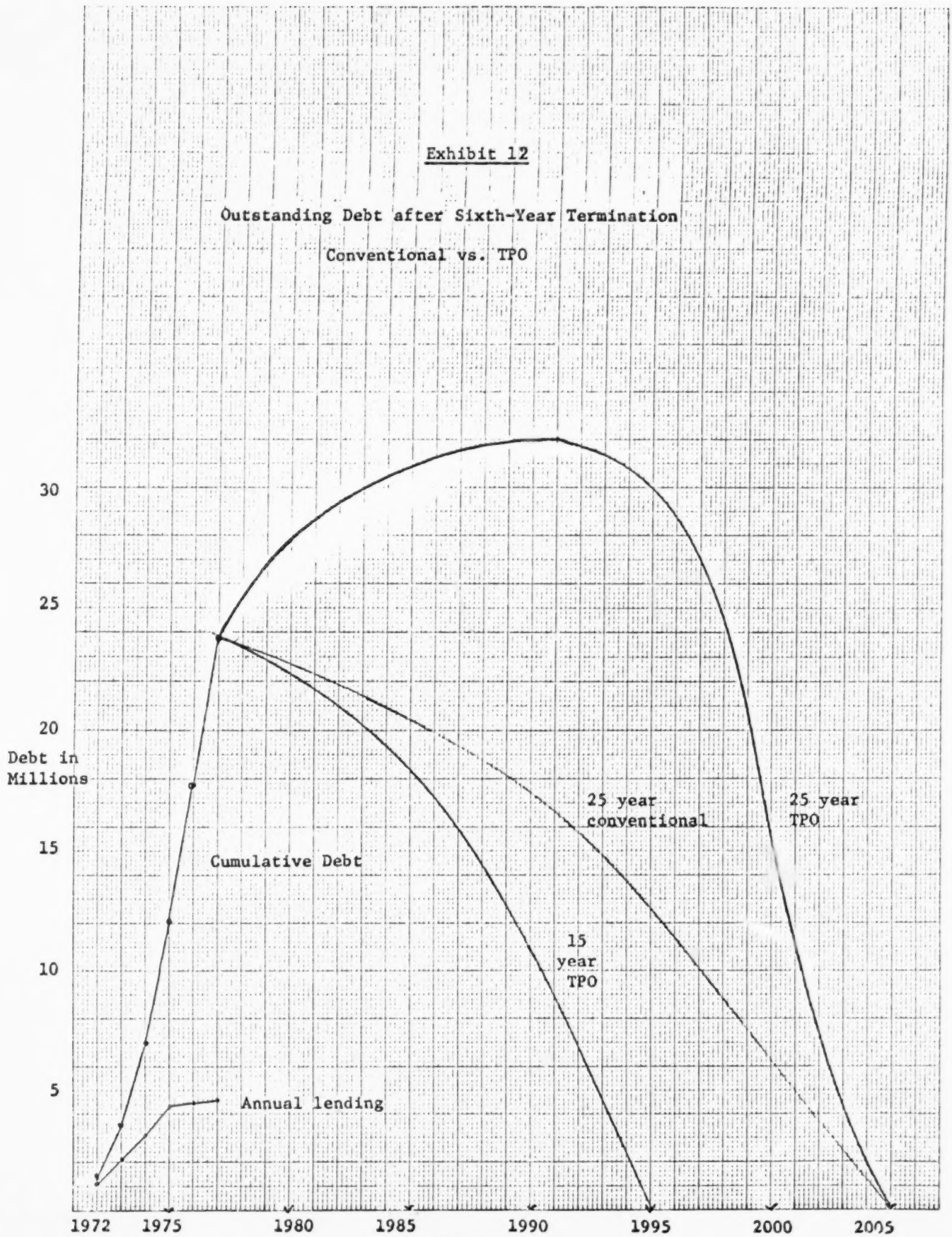
The larger size of the necessary fund for the twenty-five year TPO is a function of two things. One is the fact that part of that money is being used, not for student loans, but to cover the interest accrual while the students' income is low; and the other is that these loans are turning over very slowly, every twenty-five years.

Now, there are two reasons that I stopped the loan limit at $1,700 from 1974 on. One is that that is in accordance with President Brewster's stated policy of essentially keeping the TPO amount somewhere in the area of 25 percent of the total charge. We don't want to get to 90 percent of the total charge financed through TPO, that type of situation.

Exhibit 12

Outstanding Debt after Sixth-Year Termination

Conventional vs. TPO



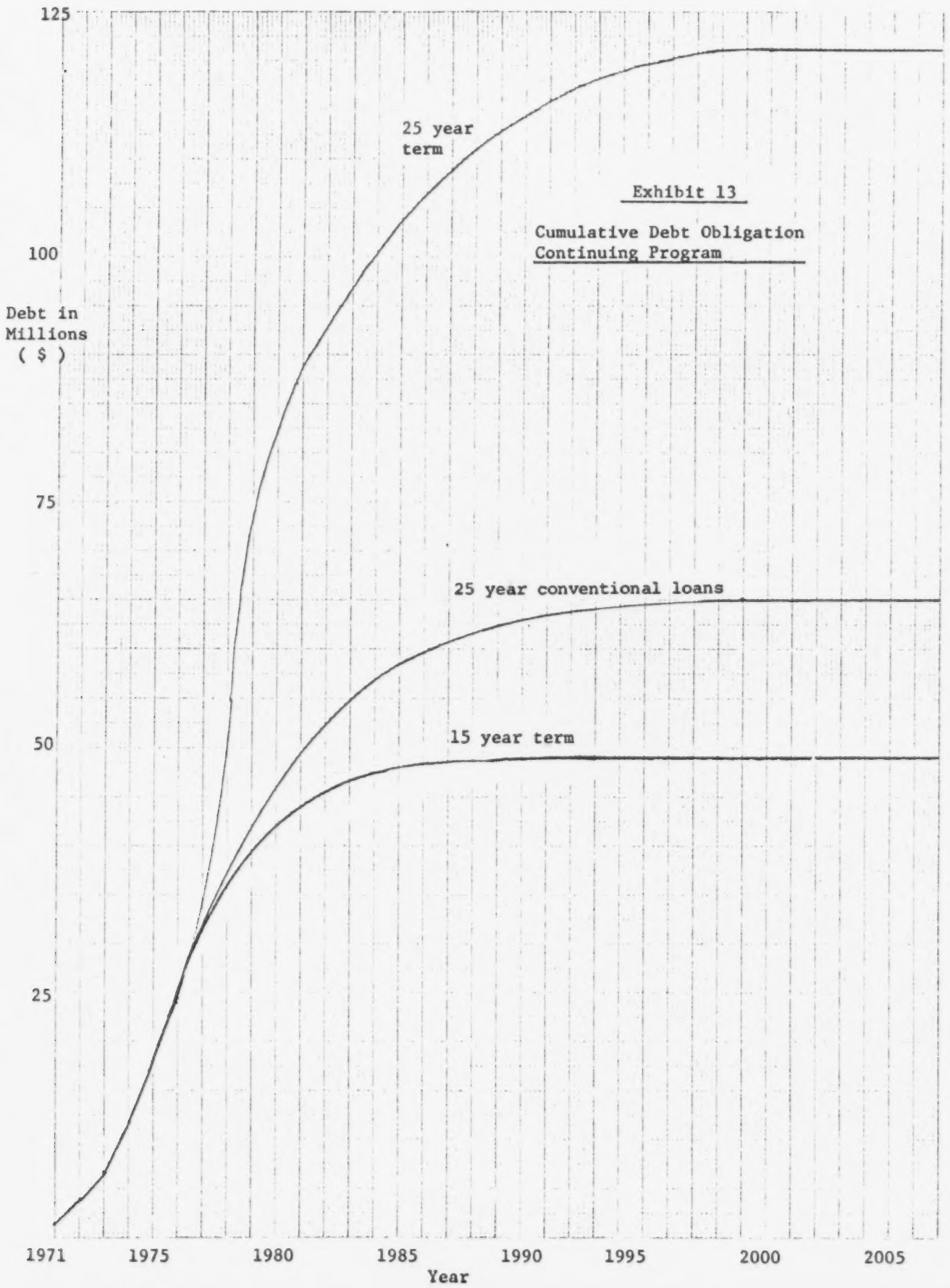


Exhibit 13

Cumulative Debt Obligation
Continuing Program

(Exhibit 14)

The other reason is that if you do keep increasing the average deferral by $300, the debt goes absolutely through the roof. We hit $100,000,000 in about ten years and are up around a billion dollars in about forty years. That is the second reason for keeping the amount eligible for deferral at $1,700, where our outstanding debt levels off at about $125 million.

Now I am going to look at the sensitivity effects that we examined. By far the most powerful is what Professor Tobin this morning called income rate of interest. This is the difference between income growth, which we project at 4 percent, and interest rates which we project at 7 percent. Now, it doesn't do much good to look at either one or the other. What you really want to do is look at the difference between them, because they tend to move very closely together, and because mathematically it is only the difference that is important.

We projected that difference at 3 percent as a conservative assumption; usually it has been between 0 and 2 percent. If in fact it turns out to be a 2 percent difference, if it turns out we can borrow for 2 percent more than the rate of growth of our alumni incomes, the group termination will occur three years more quickly, in something like twenty-one or twenty-two years instead of twenty-four or twenty-five years. If this differential is down around 1 percent, which might be more accurate, if we can borrow at only 1 percent more than the rate of income growth, we will have picked up about five years. This is by far the most important single parameter.

Looking at things like disability really isn't much of a problem. It has very little effect, since it is such a minor occurance. When it does occur, it has a powerful effect, but it is very rare. Mortality has a slightly more powerful effect, but even making some very blatant changes in the mortality assumptions, going from worse than the national average to what you think a well-educated and healthy group of Yale graduates would look like, only leads to just about a year's difference in time to break even. So that is not a very powerful effect.

On the defaults, we are projecting 1 percent. You can change it to about 5 percent, and that makes about a year and a half difference. These don't seem to be critical things. How much you can borrow for and how much your borrowers' incomes are going up are the important things.

If I start getting blank looks, please don't hesitate to stop me.

(Voice) One question: One thing that I don't understand is that this seems to presume a mature system. I am wondering if that is valid at the outset. Let's say thirty-five years from now

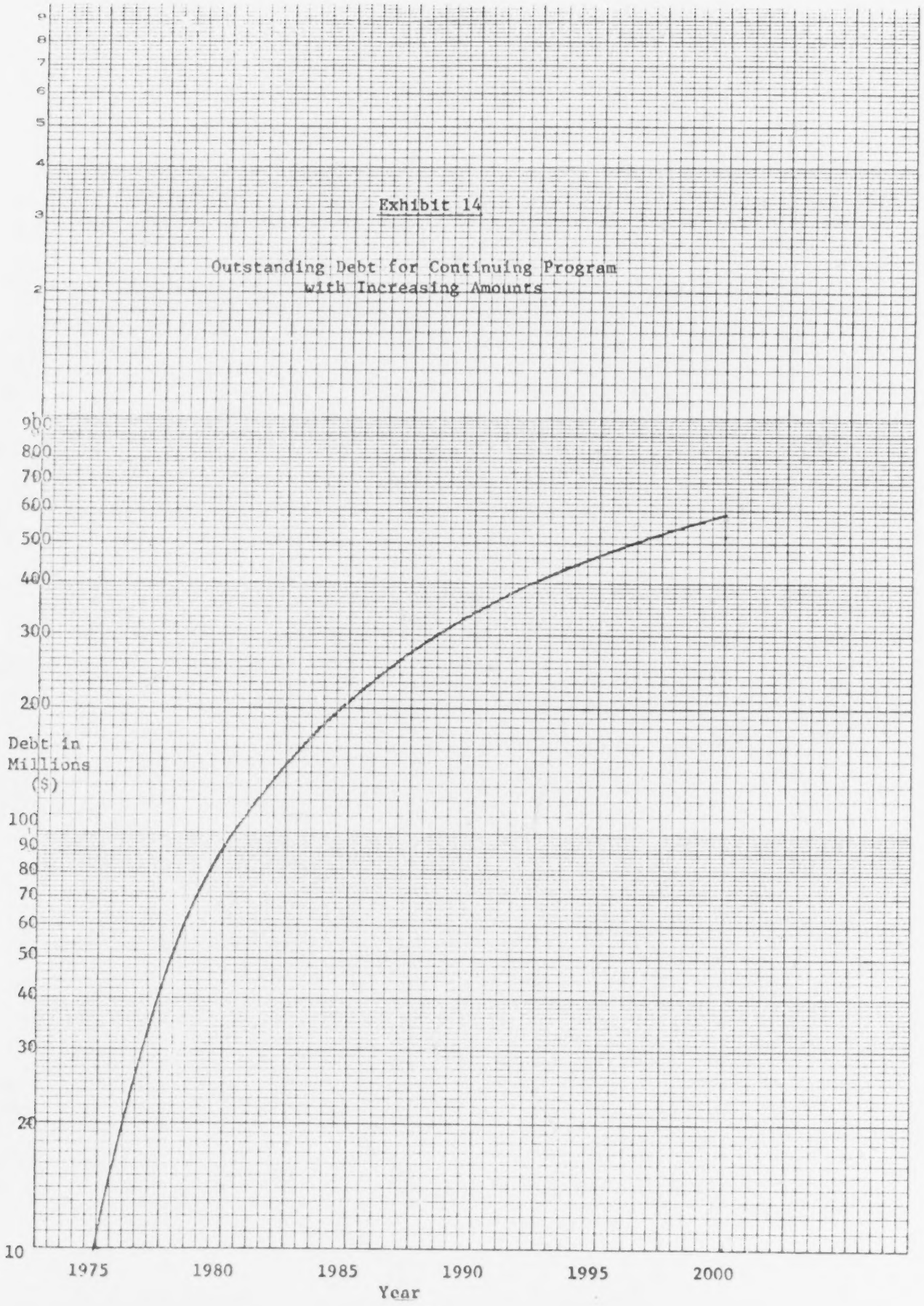


Exhibit 14
Outstanding Debt for Continuing Program
with Increasing Amounts
900
800
700
600
500
400
300
200
Debt in
Millions
($)
100
90
80
70
60
50
40
30
20
10
1975
1980
1985
1990
1995
2000
Year

you are going to have thirty-five groups that have participated in this Plan and you are going to have people earning income, the thirty-fifth year on down to people that are just graduating. I think in that situation that might hold true. But I am wondering if it is valid when you are just starting up the program, because you really don't have many people earning income. Obviously, you don't have many people that have begun their repayments.

You can conceivably get caught in the unfortunate situation where, let's say, interest rates were rising but you don't have many people paying back.

(Mr. Storrs) Well, that's all right. Each group stands on its own. We don't have a combined group operation. Each group or cohort of borrowers who start paying the same year is an entity unto itself.

Now, if that particular group suffers from a general problem, say a recession, that won't hurt us because as their incomes fall, interest rates will fall also and we will spend less on interest. If they suffer from a problem endemic to that one group, then naturally that group will terminate later or not at all, and we will take a loss. But each group is a separate entity by itself, which breaks even by itself. It gets no help from any other group.

Does that answer your question?

(Voice) I am thinking of a situation, as you start the program, let's say you had ten very difficult years where interest rates were rising. In each group you have the spread. For those first ten years you are not getting the benefit of the high income period. It seems to me for the first ten years, if you had ten straight years of high interest rates, this program could be put in a hole.

(Mr. Storrs) I think you are more concerned with the credit problems than the economic viability. You are saying that we might be tremendously in the hole--

(Voice) Right. But I think it will work out eventually.

(Mr. Ferguson) If interest rates are high in that period, incomes will be growing fast also. Although the incomes might be small in the beginning, you are building a larger income base.

(Mr. Silversin) On the basis of historical data, it does not look like a serious problem.

(Mr. Storrs) I will go on a little bit more. If you put in 50 percent more than your loan has cost Yale, you are out of the Plan, and that obviously hits the guy who wants to get out quickly. If you want to get out the first year, you are going to pay a lot of money for that privilege.

Our entire premise is that people should not want to get out the first year. If they do, they are taking the wrong kind of loan. If they want a long-term loan, this is a good kind of loan to take.

(Exhibit 15)

This is a pretty good illustration of what happened there. Let's look at a student borrowing $1,000 in September of his senior year. If he wants to buy-out of his loan, he can do so at 7 percent up until the end of April. If he didn't by then and suddenly in September changed his mind and wanted to be out he would have to pay the 150 percent, or $1,500, plus one year's interest, for a total of $1,605. In a technical sense, this would be an effective interest rate over the one-year "term" of his loan of 60.5 percent. Obviously it isn't very sensible to buy out just after, instead of just before graduation. If anyone wants to do it, that's fine. But he would have to do it voluntarily, since the income that would buy him out is about $400,000.

A $100,000 annual income would buy him out in five years. He would have paid in enough, paying based on his income, to automatically buy-out in the fifth year. He would have paid an effective interest rate of 20 percent. Again, that kind of income level seems very unlikely.

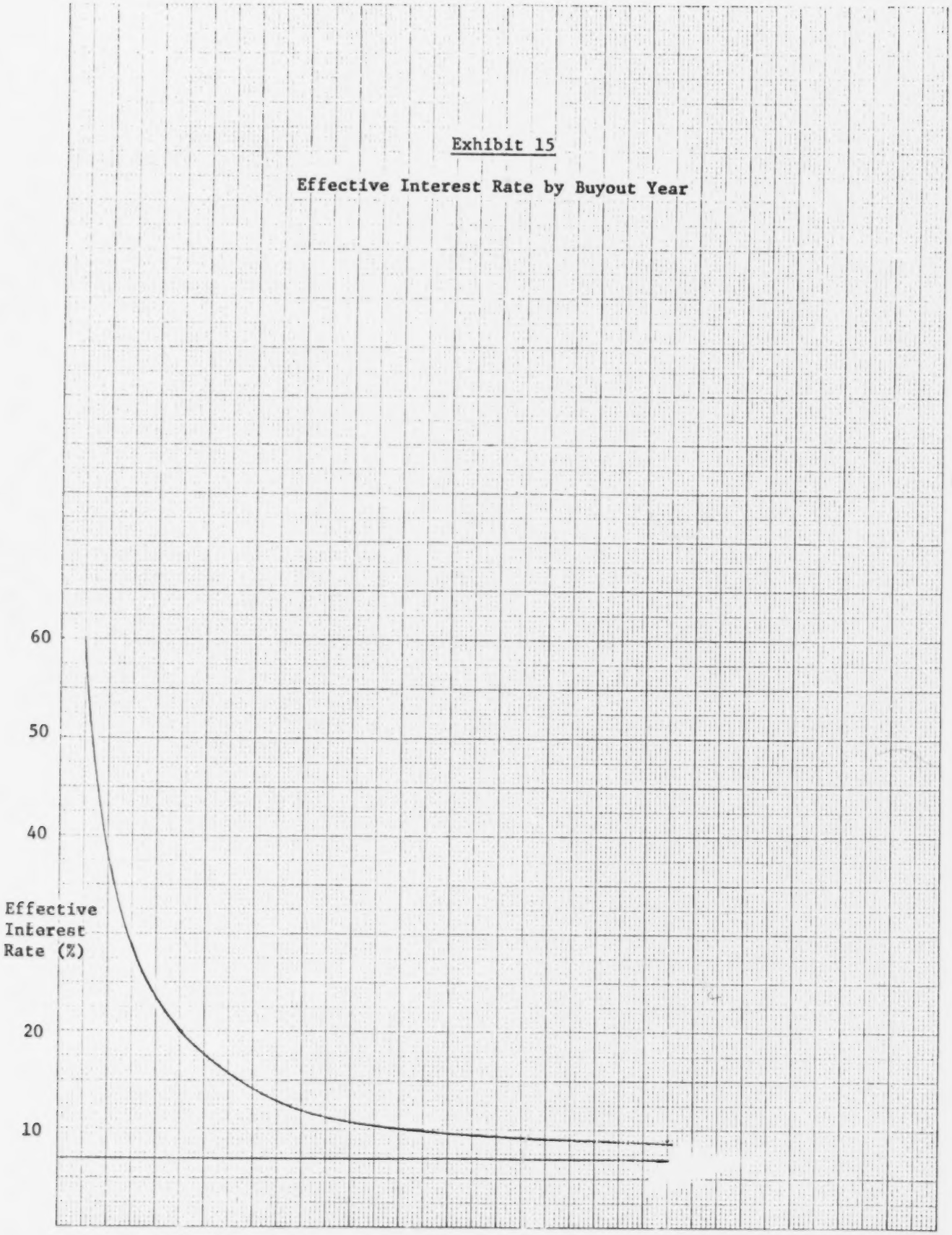
What we are really looking at is the people who buy-out, say, from year fifteen on. This is the group with high, but possible, incomes. By now the 50 percent multiple has been spread over so many years, it has a smaller effect on the effective interest rate. This group of high income - I'll say top 25 percent - graduates will have paid effective rates of between 9 and 13 percent.

The fellow who buys out just before group termination occurs ends up paying an effective rate of about 10 percent, depending on the way his income grows. But we ought to clear up the misconception that some people pay a 50 percent interest rate.

What really is happening is that we are taking the principal and interest on the fellow's loan and whenever his payments have been 50 percent more, then he is automatically out. If he wants to get out and it is worth it to him, he can always pay us enough to bring him up to that ceiling. He can do it this year, he can do it that year. We would be indifferent.

Exhibit 15

Effective Interest Rate by Buyout Year



If you remember the one graph of the buy-out, you get the same 50 percent present value, the same $500 in today's money, whether he buys out in the first year or the last year.

We had some discussion of defaults a while ago. We can envision three kinds of income under-reporting. All of a sudden a participant's reported income could (a) stop growing, (b) grow more slowly, or (c) could actually fall. These might be red flags to us. We haven't spent very much time on it yet, because people won't even be starting repayments for another year. There are pretty tight provisions in the Plan for getting IRS returns, though. We have a legal panel tomorrow to look at some of the questions on the enforceability aspects.

We looked at some different spouse rules. The subject came up this morning. The current rule that we are using was described this morning. I think it is clear. The other rule that seems to be popular now is the Ford rule. I don't know where the lady is who brought up the question. Their rule has everyone paying on his own income or on joint income if married. This is a more severe rule. Do you want to tax people on their ability to pay, which clearly joint income does represent part of, or do you want to tax people on their own income in some sense?

And then there is another fundamental question. What kind of redistribution do you want? Do you want to have married people paying off part of the unmarried people's debt? You get a lot of these questions. It is not until you have actually worked them through a model of some kind, tried some different hypotheses, that you can actually get a handle on where the money is flowing. In this case it looks like probably married people do end up paying more than unmarried people, since they have greater ability to pay. That might be fair, it might not be. I don't think we have solved the question for good. But it did come up this morning.

Now, are there some more questions? Are there any areas there that are not clear?

(Voice) I wonder if you have any more information about potential income other than those ten, fifteen and twenty-five year class reports. Do you have anything, for example, for the first five years, or anything less than ten years?

(Mr. Storrs) No, we don't. From our own classes, we don't get those until the tenth reunion. We do have census data, though, that indicate national figures.

Presumably that ought to give us at least a base point that we can work from. We can look at the alumni reunion figures, and for the reasons we discussed this morning, they might be biased upward a little bit. They might not be. I think what we

actually ended up doing was taking some kind of a compromise between the two, degrading the alumni profiles a little bit. But these were the two sources that we used to get the income figures. Remember, we only used earned income. One of the contentions made sometimes is that people who borrow will probably end up having little income. Well, in fact, we haven't found much of a difference between earned income of people on aid and earned income of people not on aid. So hopefully we do have something that is pretty representative, and to the extent there is unearned income, the projections are conservative.

(Voice) It is my understanding that you plan to do this for a five year period, and then if nothing else comes along or happens, you would cut out at the end of five years. Have you projected precisely what would happen at the end of five years, assuming at that point you wouldn't have a great many people in repayment status, particularly if a lot of undergraduates went on to graduate school?

(Mr. Storrs) Bill, would you like to answer that?

(Chairman Buesking) Well, you have got two kinds of problems. You have got the phase-down problem of those people who are enrolled with some kind of moral if not other commitment on the part of the university to continue them through graduation. So that in practice, we will probably have to start looking at a phase-down at around year three or four, and actually tail-out to year six or seven. This actually assumes a driving-off-the-end-of-the-cliff sort of thing. But the aspect of the fact that there are low repayments from this group is unaffected, because these groups are individual groups. We plan to roll over and borrow for those groups, even if we discontinue for the rest of the university, and carry those groups to completion.

We are faced with a capital requirement and the interest requirement, because it is somewhere around year twelve when student repayments equal interest costs for any given group. So there is the interim financing and cash flow problem. But that has been taken into account in our assumptions.

Now, there are two kinds of things that might happen at that year five or six. Suppose there is not a national student fund, and we don't find any wealthy donor who wants to underwrite the plan. There is a good probability that there will be enough information for the Chemical Bank and others at that point to say that it has some merit in and of itself. We will have some repayment experience. We will have some bad debt experience which we can project. We will have five years of economy under our belts to test the assumptions we have used in the model.

Instead of having to collateralize assets or use the institution's assets to underwrite that loan, maybe that paper in

itself is worthwhile, a portion of that. If that proves successful, then you have solved a part of your capital requirements.

If you, in turn, can either collateralize the student paper or rediscount it, and use it as your vehicle for additional capital, instead of continuing to use the institution's resources, that will certainly help the capital requirements.

(Voice) One other question: Do you think this is a feasible program for a smaller school with far less endowment?

(Chairman Buesking) I think so. We happen to be planning to pledge a piece of endowment. But we have a limited piece of it available for this purpose. There are other kinds of agreements that can be reached. Income streams can be pledged. The tuition stream itself can be pledged as the first claim for the financial institution lending the money. There are a lot of other things besides a larger endowment that are available to provide the guarantee to the institution that they may seek at the outset. My own hope is that they will find this is not, over time, such a drastic thing that it could not be accepted in and of itself.

(Mr. Storrs) I think the income question is quite important, and I would like to go into it a little more. Can you, Lou, go into that?

(Mr. Silversin) The difficult task is to come up with some estimate of what your future paybacks will be. You are uncertain as to what the future incomes will be of a group of graduates. It seems to me that I can best characterize what we did by saying that we consulted the data that were available. They were basically the alumni reunion reports, and some national census data.

That gave us a feeling about where the numbers would be. We had an estimate. Then we made assumptions which led us toward a very conservative end of that estimate. So that we had a pretty strong feeling that the numbers that we were working with were very conservative estimates. Well, that gives you the kind of story that you see up here on the blackboard that Professor Tobin was talking about this morning.

We can talk about what we would be getting from various sources at different points in time. What you really want to know, for a given plan, once you have an idea, once you have hypothesized what those income profiles look like, is what those dollars are worth today. Dollars in the future are certainly worth less today than they are in the future. We want to compare them to the amount that we are lending now.

For the plan to be viable, those dollars that you are getting in should be equal to dollars that you are lending out.

Well, in order to get a handle on whether the plan is going to be viable, the calculations are obviously not all that complex. When we started out, we did a lot of things on desk calculators for a few days until we got a picture of what was going on. It wasn't until a few weeks later that we began to try to do the thing in a more systematic, refined way.

Essentially what we did, once we had a picture of what the profiles would look like, was to go through the following exercise. If you have this estimate, this cross-section estimate of what various graduates are earning today, for instance, you know what a guy twenty years out is earning today, what you would really like to know is what a guy twenty years out will be earning twenty years from now. So you assume some rate of growth of income, say 4 percent a year. You can calculate what that is going to be. But that is not enough, because then you really want to know what that sum is worth today. You have got to evaluate these dollars at some point in time. And as convenient a point in time as any is the present. So you would like a present value of those dollars.

So you discount that for twenty years at some rate of interest. Well now, the question is -- and it has been alluded to before -- how do you pick the rate of interest at which you discount to find the worth of those dollars today, and how do you pick the rate of inflation at which you estimate what incomes will be twenty years from now?

It turns out that it is arithmetically true -- it has nothing to do with any economic theory -- it is arithmetically true that all you are really interested in is the difference between those two rates, between the rate of interest and the rate of growth of income. And it is a very conservative assumption to say that that will be less than 3 percent.

So without trying to predict what is going to happen to incomes and what is going to happen to interest rates, you can make that assumption. You can make a conservative assumption about what you think the profile really looks like. And you can see how big a tax rate you really need in this plan in order to make it break even under the worst assumption. That is the kind of exercise that we went through.

We found that a tax rate of .4 percent gave us a very comfortable margin for error. So that getting a feel for the situation that far is really not all that complex a task, if you are just willing to make the appropriate assumptions and do the calculations.

(Voice) Suppose your assumption is incorrect on 4 percent income growth and 7 percent on interest rate. Let's assume you had a differential of 4 percent rather than 3. You have heard it alluded to this morning why they picked that figure of 3

percent. But I am still not convinced in my mind that that is conservative.

(Mr. Silversin) Historical data says it is conservative. We looked at published figures, and the difference between the two has usually been down around 1 or 2, and sometimes even turns negative. It may not be quite that low, because that is the rate of growth of income for the general population; and the rate of growth of income for college graduates may be a little bit less. Even if that assumption doesn't turn out to be correct, we have also got the fact that we have got seven or eight years to play with at the end. So the figures can turn out to be substantially worse than we think they will.

(Voice) If it did turn out to be 4 percent, would that destroy the eight or nine years of leeway?

(Mr. Storrs) Let's draw the graph up in that direction. It looks like it would use up most of the leeway. But suppose it does turn out to be 4 percent. Instead of taking thirty-five years, it might really take thirty-six years. So now we don't break even on this group. Well, that's no great catastrophe.

Instead of giving back the full $500 that they took through TPO, let's say they have only given back $490. If we had been on the old system of giving them financial aid, they would have paid us $500, we would have given them back $200, for a net return of $300. No matter how you slice it, we are dramatically better off using this program.

In addition, we might have a couple of things going for us. We do have some unpredictables. We also have some predictables. You would expect the default rate, for instance, might be lower. If you are paying $1,200 a year on a conventional loan and your income is $8,000, you might be very tempted to default. Well, you don't have that problem here. It has been effectively solved. I don't know how far you want to push that, but there are some things about it that might be more viable than a conventional loan.

(Voice) In other words, you are comparing the different groups.

(Mr. Storrs) With the traditional policy.

(Chairman Buesking) There is one other point I might make on the tax rate and the catastrophe. I think Lou and Jim did look at what would be a national tax rate. Forget premium for Yale Law School degree, or forget premium for a college degree, and look at a national rate. That is probably like .55 instead of .4, or something on that order. It is not as grossly different as you would think it would be.

Similarly, as you think about going from a 3 percent to a 4 percent difference, that is really a third catastrophe. We think that something on that order is a highly unlikely thing. Our trustees did require us to provide a sinking fund for that contingency, and we are going to build a reserve or sinking fund which will have to grow in proportion to the total debt we put out. It is aimed at being available for this catastrophe, or until such time as we see that it is not going to occur.

(Voice) Do you permit people who are participating under this program to also borrow under a guaranteed student loan? Can a student graduate from Yale and borrow from other programs?

(Mr. Storrs) He can borrow from wherever he wants, but he can clearly borrow from us. We will guarantee him that he can borrow from us. Otherwise, we couldn't maintain the open admissions, or the admissions based on ability, if we didn't guarantee him a source of funds.

Most of the students are borrowing in a couple of places. We don't see any inconsistency there. It might not be a good idea to have two major programs at Yale, one conventional loans and one deferred tuition, for the reason that Professor Tobin talked about this morning. There might be an adverse selection process. But in terms of outside borrowing, there is certainly no reason they can't. In fact, it reduces our credit demand.

(Voice) Of the total amount borrowed, what percent are you putting into the sinking fund?

(Chairman Buesking) I can't recall the percent. If we reach $25,000,000 in deferred tuition loans under this Plan, we will have to have a sinking fund of $1,750,000. I forgot what percentage rate that expresses. But when we reach the full limit of the Plan as we now conceive it, we will have to have approximately that amount as a contingency.

(Voice) Regarding the sinking fund, do you anticipate student repayments will provide for the sinking fund or will Yale make that up?

(Chairman Buesking) We hope philanthropy will.

(Mr. Storrs) There is no conceptual reason that you couldn't, just as we are adding on, let's say, half of 1 percent to our cost of borrowing to pay for administration, there is no conceptual reason that you couldn't add on half of 1 percent to create a sinking fund, or to enlarge the student loan fund. There might be some legal problems, but there is no conceptual reason you couldn't do it.

(Voice) What would you do with your current student loan funds if you don't have two large loan alternatives? You just said and Professor Tobin said you shouldn't have a conventional student loan fund at Yale as well as the tuition postponement. You already have conventional student loans. What will you do with them?

(Mr. Silversin) We are talking about long-term conventional loans. Yale currently maintains its same level of financial aid as it has in the past.

(Voice) So you would continue the same type of loans as you presently have?

(Mr. Storrs) We are giving exactly the same financial aid that we did in the past. We are giving federal loans that are funneled through us. We are certainly approving state loans that come through us. We are just not putting out our money in conventional twenty-five year loans to compete with our money in income-contingent twenty-five year loans.

(Voice) Are you deferring all interest costs on this? Doesn't it penalize current budgets?

(Chairman Buesking) Yes, in effect.

(Voice) Are you then recognizing it as income?

(Chairman Buesking) That is correct. It is no different for any loan. It comes in as tuition income when the student executes the program. There is feature I should have mentioned this morning. We have an obligation that both the capital and the administrative and operating costs of this Plan are outside the Yale budget. It has to live on its own administrative rate that is in the Plan, and has to provide the capital from outside sources by borrowing rather than by loaning from endowment or putting it in the annual operating budget, or putting into the annual operating cost the cost of the office. The Plan has to be self-sufficient and self-contained in that sense.

So it is outside the operating budget.

(Voice) Would you say once again, if you did it before, what assumptions you have made about the amount of outside borrowing that these students will be making? The implication of the previous question has gone by us. Have you made some provision for the fact that some of the students will still be repaying shorter term conventional loans?

(Mr. Storrs) I think that was a large part of the decision to put the repayment rate at .4 percent instead of higher. If you do have a student who has, let's say, $5,000 in conventional loans, he is paying back somewhere in the area of $800 a year. He may

then take $5,000 in TPO loans and pay another $150 a year. He is starting to get near the maximum, let's say six, eight, ten percent of income that he can repay on loans. If he had everything in tuition postponement, he could support a much larger loan burden. I think this had a lot to do with why we set the rate that way.

(Voice) But looking at it back the other way, in terms of the order in which he discharges his obligations, assuming, for example, new legislation would move that maximum borrowing up to $10,000 plus TPO, I am just wondering what provision you have made. This may come up at the legal panel. But it seems to me the obligation to repay the federal loan is going to become exceedingly strict to collect that money. I am wondering what allowance you have made for that against his ability to meet even the .4 percent rate.

(Mr. Storrs) Well, $10,000 through a National Defense Student Loan would cost somewhere around $1,150 per year. On an $8,000 income, we are talking about a pretty high percentage of income.

Our hope would be that the person who is going to do a lot of borrowing looks ahead a couple of years and sees that a 3 percent, government subsidized, interest rate doesn't mean very much. What he is really concerned with is the annual burden of his repayments. And the fellow who is going to borrow a lot of money should then come to us, just like when you have to borrow a lot of money for a house, you get a twenty-five year mortgage.

To the extent that we get a fellow with a serious NDSL, we can defer payments if he requests a deferral of payments on the ground of financial hardship. We would hope it wouldn't happen much. He now moves into the group that is a year behind, so he will get out a year later.

(Mr. Ferguson) I want to raise two points from the discussions this morning and earlier this afternoon. There was a question asked of Jim Tobin about why, in the face of what we call the spouse rule, why we have used one-half of the joint income or the individual's income, whichever is greater. I think the question there is, "Why not just one-half the joint income?"

One of the problems with that is that if we would consider for a moment that the Yale College females are going to be the ones who are not participating in the labor force, two Yale College males, one who marries and one who is not married, both let's say have starting incomes of $10,000.

In the spouse rule where he paid on one-half the joint income, the fellow who was married would be paying on $5,000, and the guy who was single would be paying on $10,000. This is particularly a problem for us, since such a large fraction of our students are males, if my presumption is correct as to who is

going to be in the labor force. The real effect of this, however, will be that the .4 percent that we have been talking about probably will not allow us to have an economically feasible program, that in fact our repayment rate would have to be something like .7 percent, because most of the males are now paying on one-half of their incomes rather than their entire income.

Another point was this issue which Dave has raised and Jim raised earlier, with respect to both the group and individual termination, but particularly individual termination, if you would determine termination on the basis of some equivalent loan, like a 12 percent loan, as if you had paid off a 12 percent loan.

One of the problems we found with this, at least in our early analyses -- I presume it is still a problem although I haven't been involved in these recent analyses -- is that someone who is a very high income individual pays back in present value terms much less to get out of the program than someone who is moderately well to do. One of the cases we were particularly interested in was a fellow who, two years out of school, has a bonanza, strikes an oil well or something like that, versus a professional such as a doctor or lawyer whose income is a little bit slow in building up, but maybe within ten to twelve years after graduation has achieved a very substantial income.

I say present value terms. If you had to pay a lump sum penalty to get out of the program, the professional who is doing moderately well -- let's say he is making $30,000, $35,000 -- could be paying much more to buy out of the program in a lump sum term than the guy who is making a million dollars a year and can get out in the second or third year. I think we had some reservations about the equity of that situation. Besides the equity, it also has impact on the feasibility in terms of the total repayments that we get in our cash flow and financing requirements.

(Mr. Storrs) There is no reason that you couldn't have a program where everyone eventually got out at some point paying exactly the same cost that his loan cost Yale. It would just take a person with a lot of income a short time to be out, a person with a lower income would take longer to get out. You wouldn't have any subsidization of high income people paying for low income people.

Everyone would pay off, let's say, a 7 percent loan, if that is what it cost Yale. They would just do it at different times. The number of combinations and permutations that you can work out on these plans is absolutely staggering. There is an incredible number of different value judgments, financial criteria and actual considerations of equity.

Who should be doing the paying, and what should he be paying based on? These are the things that you have got to ultimately back up, assuming you have developed some kind of a model. You have developed the tools to look at the decisions. Then you have to start making hard judgments about how you want to define your criteria.

(Voice) Are you saying that you can require a student to pledge 4 percent of his family income at some point, if he marries or she marries and the spouse goes to work?

(Mr. Storrs) I think you are referring to the comment before. What he was referring to is the spouse rule, as we call it, which is the provision for how you compute your income subject to the percentage payment. If you are single, it is always your own income. The current rule says that if you are married and filing a joint return, it is your income if your income is higher than your spouse's; and it is your average income if your income is lower than your spouse's.

We were talking about possible variations on that. Instead of that particular rule you could have chosen any one of seven or eight different rules, to the effect that if you are married you pay based on your joint income or you pay based on half your joint income. One rule that might have some equity would be, if you are working full time you pay based on your own income whether you are married or not. But there are a lot of different ways that you can set it up. This is the kind of thing I am referring to.

No matter how good a model you build, you have still got some very hard decisions to make when you get to the end.

(Chairman Buesking) We will cover the spouse rule some more in the legal panel tomorrow also. I would remind you at the coffee break, as I did this morning, those of you who have parked in the 4:00 o'clock parking zone, if any, don't forget it, because they will tow.

At the end of the finance panel this afternoon, we will have a pay-as-you-go cash bar for some social fellowship at the fraternity house that is marked on your Yale map. It is circled on the map. It is about two or three blocks from here on York Street.

(Voice) Is there a cocktail deferral plan?

(Chairman Buesking) We would be glad to take a share of the doctor's income if he would like to do that.

We are working on an attendance list. If your name is not on it, or you were not registered when you came in this morning, let us know; we will try and have it typed out tomorrow. Coffee time.

...Recess...

PANEL ON FINANCES

Joseph B. Hartmeyer
Vice-President
Chemical Bank

Philip R. Reynolds
Senior Vice-President, Securities Department
Travelers Insurance Company

Robert D. Kenney
Salomon Brothers

Wallace Johnson
Girard Trust Company

Robert Costa
Chemical Bank

Albert W. Buesking
Treasurer
Yale University

(Chairman Buesking) You can tell our concern with the financial aspects by the size of the panel. We decided we needed to expose you to a number of things. I would like to introduce the people as we proceed. We looked at a number of ways of financing the plan. As I mentioned earlier, we were committed not to put Yale's money into the plan. That wasn't based on the fact that we didn't have confidence in it, but because it probably wouldn't have proved very much had we said we will take $25,000,000 worth of endowment and invest it in student loans. That's fine. We possibly could have done that. However, that would not have demonstrated whether or not Chemical Bank would loan the money or if we could interest pension funds and insurance companies in assisting and financing such a plan. So it was a very conscious decision on our part to go to commercial money sources.

In going to these various sources, we first talked to the major insurance company in Hartford, whose chairman was an "Old Blue", a Yale alumnus. They provided us with some research and assistance from their actuarialgroup, as well as very cold advice from their loan officers.

We held exploratory talks with other insurance companies as well. We talked to two investment banking houses, one of which is represented here today. And we finally went to Chemical Bank, because they are our bank in New York. Joe Hartmeyer and Bob Costa on my immediate left are from Chemical Bank. Bob Kenney on my further left is from Salomon Brothers, and worked with us in exploring a long-term variable repayment vehicle that we might develop.

We have two other people who have not been involved with the Yale Plan directly. Mr. Philip Reynolds from the Travelers Insurance Company, Securities Department, Senior Vice-President, is familiar with the plan, but he did not participate in its development, and hopefully will bring us a fresh and new viewpoint about how insurance companies may be providing capital for such plans. And finally, Wally Johnson from Girard Trust Company, who has been involved with a group of medical schools in the Philadelphia area, and a consortium of banks, and has a variation, not on contingent loan plans or income-contingent plans, but one having progressive payments.

Now, I think our approach, as a panel, will be to have each of the gentlemen describe briefly his particular perspective and viewpoint on the subject of both financing higher education and the income-contingent aspect of the Yale plan. Then I would like to open it up to discussion. You can ask them the hard questions, such as how are they going to lend money to somebody with a different set of assets, and a different set of students, than Yale University.

Joe, do you want to make some observations?

(Mr. Hartmeyer) I am with Chemical Bank in New York. We have done business in the past with Yale, so Mr. Buesking approached us originally. I guess it was the blind leading the blind to some extent as we didn't have any exact ground rules for the type of program that Yale brought to us. First of all, our bank is a commercial bank. We are very much interested in education. It is a worthwhile endeavor where commercial banks should try to be able to help.

We say that because actually we are a service organization. The success of our bank is in the hands of our staff, and the better educated they are, the better we can do.

We at Chemical Bank, as many other banks, are already active in financing in the field of education. I am sure you are aware of some of these plans. At the Chemical Bank there are three basic plans in which we are heavily engaged now. One is the New York Higher Education Assistance Corporation These are loans that are guaranteed by the State. The rate is a simple rate of 7 percent. At the present time I guess we have 17,500 loans outstanding totaling about $23,000,000.

We are one of two banks in the State of New York, the only one in New York City, that is involved with the United Student Aid Fund program. These are backed by the federal government, as you know, and we are lending to students under this program.

The third one is our own program. It is a parent tuition loan program. There are no guarantors under this, but we are looking to the parent for repayment. It is a combination of saving for tuition, and then paying back. I won't go into the details, but it is an eight year program. The loan is on a discounted basis. There is about $3,000,000 or $4,000,000 outstanding in this area.

Yale's plan is a new breed of cat for us. It met our criteria in some ways. We as a commercial bank are going to look first at the borrower, his character, and so forth. We felt Yale qualified from that aspect.

Secondly, we don't want to be the only ones in the act. We don't want to have more risk than the borrower. We want a borrower to have a risk, to have an investment in itself, and certainly Yale does in this program, because it is ultimately on the hook for it.

Normally commercial banks -- and this is an area that is germane here -- are short-term lenders by nature. Insurance companies, pension funds and other long-term investors make the longer term loans, but primarily our deposits are short-term in nature, and therefore it isn't considered good practice to borrow short and lend long. So normally we have five to seven years maturities. There are exceptions, of course.

In addition, on any loan we look to see a repayment program, some way to get paid out, whether it is self-generating or by a commitment from somebody else. Finally, we also look to see if our loan is secured, so if something goes wrong we can get out.

On the Yale Plan, we have committed ourselves to working with Yale and supplying the funds that will be needed on an experimental basis for a five year program. We hope to see it develop so that this program, whether in the form Yale has it or whether it is altered to some other, will find acceptance and will find support from the outside, possibly the federal government or private enterprise or what have you, so that the loans generated can be financed out in the marketplace on a long-term basis.

Of course, that is what should pay off the Chemical Bank loan. If the program does not go, we will work with Yale on this five year program, and then set up a repayment schedule for the phase out. That is about it in a nutshell. I do myself feel that it is completely appropriate, in something like this, to borrow from a commercial bank. I agree with Professor Tobin's rationale this morning of the advantage to Yale in borrowing on a variable interest rate basis, i.e., on the current market basis. However, eventually what I would like to see happen is for Yale and others to be able to generate long-term financing. I think that wouldn't be on a variable rate basis, however, but on a fixed rate basis. They could borrow from banks on a short-term basis, building up to a certain amount, and then go to market with longer term issues. If they build up enough loans from their banks, they can periodically go to market. Maybe it would not be on a variable rate basis, but they would be able to issue one year after another at varying rates of interest, so that on a long-term basis their overall cost would probably come out to what the market rate would be over a period of time.

(Chairman Buesking) Thank you Joe. Moving from the kind of short-term financing that we arranged with Chemical, I would now like to ask Phil Reynolds to talk about the insurance company's viewpoint. The life insurance company might be viewed as the long-term investor with a need for long-term investments because of the long term nature of life insurance benefits payments.

(Mr. Reynolds) In your introductory remarks you said I had some knowledge or familiarity with this program. I have to correct you on that. My knowledge is very limited. But I do have some interest in it.

I think to put our role in the scheme of lending in some perspective, Joe Hartmeyer said life insurance companies, by the nature of the assets, insurance reserves, they are investing, tend to be interested in longer term notes and loans. We don't like to lend money for five years, as the banks do. We are much more interested in something on the order of fifteen to twenty years.

Of course, the obligations in back of these tend to be long-term reserves rather than short-term deposits. Again we have exceptions to that. In trying to think of the funds required to support a program such as Yale is undertaking here, or that any other college might do, several things come to mind. One is: How could the funding of such a program fit the appetite of long-term lenders such as insurance companies, and pension funds? I think we are, as an institution, as an industry, largely guided by avarice; but mixed in with this we do have a social conscience and interest in social loans. It is very hard to distinguish these from time to time, in some cases wondering just what one's objectives are in making loans. So to the extent that a loan has a good social purpose, such as this, and can approach what we are as lenders looking for in the normal course of business, I think it is that much easier to sell to managements of institutional lenders.

As I mentioned, long-term loans are of more interest than short-term loans. As I looked at the figures in the earlier presentation -- I am not sure I understood them all -- but the curve on one of those sheets -- and I think it was semi-log paper, was still going up at quite a rate. One of the things that concerns insurance company lenders and long-term lenders is what we call "evergreen loans", loans that keep growing and never get paid down.

So there has to be, in my view, some way to segregate these loans rather than have them all in one great pot where the outflow of cash (i.e., the amount of borrowing) is always growing at a faster rate than repayment. I think this is hard for long-term lenders to live with. As insurance companies, we also have some legal problems to deal with, namely, loans have to conform to state laws, most likely New York State, which has, from our viewpoint, the strictest qualifications.

Very briefly, the borrower has to have a certain ability to cover the debt service. Historically, in the absence of that, it either has to be secured, or if unsecured, and a new venture, it has to be deemed non-speculative. There is no definition of what non-speculative means.

In thinking of long-term funding, I gather there has not been any thought that a lender, an institution which might fund this program, would deal with individuals. Rather, there would be some intermediary such as the college. The lender would not be looking directly to the credit of a thousand students in the Class of 1972, nor could he under particular restrictions. We could not lend money directly because we cannot lend to individuals. So there would have to be an institution involved. Whether it

is the college, whether it is a consortium of colleges in a geographical area, or whether it is the Port of New York Authority -- you can conjure up all kinds of institutions to be the middleman in the picture. But I think that is quite essential.

Some of the things that come to mind, thinking of this quickly, are: What would be the security behind this? If it were just an institution, should part of Yale's endowment be behind this? If not, would it just be a general obligation of Yale? I think these two things would attract or turn off certain kinds of lenders if it had one and not the other.

I think also for an institution such as ours there is a question of whether it would be more equitable to do it with a number of funds rather than one. From a credit viewpoint, Yale would be a dandy one. At least I would have thought it would be. I am not sure, on the current cash flow, whether it is any more. But are you going to have the problem of the Yales and Harvards and Wesleyans dominating the market, so to speak, to the detriment of small colleges which do not have endowments or names so well known? So I think it raises a question of how best can all colleges that want to participate in this kind of thing band together in some way. I am not saying every college in the country has to join in one kind of group, but maybe there could be regional groups.

Well, those are just some of the things that occur to me in starting from a position of innocence on the whole question.

(Chairman Buesking) Thank you, Phil. I think you will hear soon from Wally Johnson on one of the area regional consortium ideas. I would like now to have Bob Kenney describe to you the interest of the banking house in this sort of plan, what they see as the problems and opportunities with long-term debt for financing student education.

(Mr. Kenney) Thank you, Bill. It seems to me, in looking at this program of Yale's that it has several objectives; among these are finding a solution to the problem facing higher education in general, and also Yale's specific problems. But it seems that in order to meet these objectives, Yale has to finance this program effectively. The program has to show that it is viable. It is important for Yale to get other educational institutions involved in this program. Once this has been accomplished, Yale and the other schools could possibly apply pressure on the federal government to come in and take the original lending institutions out with some sort of national plan. It is very clear that, regardless of how effective the program is, from an administrative and financial point of view, it would eventually outstrip any school's resources. I think one way we might be helpful is to offer some suggestions on the best way to finance this Plan.

It is our opinion that in order to effectively fund long-term responsibilities, you should use long-term obligations. It is very dangerous to borrow short-term for long-term obligations because borrowing short-term and continually coming back into the market on a year-to-year basis can be very, very risky. If the Plan can determine what its financial resources are and borrow long-term on those resources, it would have the security of knowing that the funds are there at a given cost.

In terms of what market we see for this type of security, I think at the outset this should be a long-term private debt market. If you analyze the various institutions, the group which is the most significant in the private long-term market is the life insurance companies. As Mr. Reynolds mentioned, they generally loan long-term because they have long-term obligations. If you analyze the other institutions, like banks, mutual funds, pension funds, etc., this is probably not their instrument.

An agent like Salomon Brothers might be helpful in selecting those institutions which it feels are sophisticated enough to understand the Yale Plan and the unique financing it would require. The basic problem from a financing point of view is that the loan repayments to the institutions should parallel the student repayments to Yale. This would require a deferral of interest as well as principal payments for several years and an unusually long-term, which would be approximately thirty years. Both of these, especially the deferral of interest, are quite unusual although this financing would be unique, in our opinion it is possible if it is explained properly, if the lending institutions are carefully selected, if the validity of the plan is adequately described and if the credit of Yale University is effectively utilized.

(Chairman Buesking) Thank you, Bob. We would like to have Wally Johnson talk about the efforts of the Girard Bank and their consortium of medical schools in the Philadelphia area. On the subject of consortiums, as you may know, there have been a number of them developing. There has been one attempted with graduate schools. There has been one attempted with medical schools. There has been one attempted with a collection of business schools. I am anxious to hear how Wally got this group together, because those three groups could not agree among themselves, and so far have not come to fruition because of lining up all the constituencies I mentioned this morning. Trying to get them all in agreement about a common plan, even a very simple plan, is a staggering task.

(Mr. Johnson) Thank you. For the past year I have been working with three associates in Philadelphia toward developing a plan to finance medical education. We approached this in a systematic way, first analyzing the requirements of the students in today's market, then looking at the requirements of the providers of funds, that is, the banks, the insurance companies, the private and public money markets.

We believe a primary concern of students, medical students particularly, is the lack of certainty from one year to the next as to whether they would be able to get grants, scholarships or loan money. Secondly, if students were able to get money, how much would be available. Would they have to go home to mom and dad, or could they get money on campus? If they could get money on campus, would there be enough to go around? Thirdly, when the medical student graduated, would he be faced with a repayment burden which would be more than he could handle? As you know, the existing loan programs now invariably call for ten-year repayment schedules, with payments either fixed or actually decreasing as interest payments decline. This places a heavy repayment burden on the student when his ability to repay is perhaps the lowest of his career.

The requirements of the providers of funds, as the bank understands them, are three: first, there must be safety of principal. The definition of safety of principal, of course, varies depending on who is providing the money. Secondly, you have to have varying degrees of liquidity, that is, the ability to get out of a loan within a relatively short amount of time should the need arise. Thirdly, along with the safety of principal and liquidity, there must be adequate return on your investment, in light of the risk being taken. What we decided, after looking at all these requirements, some of which seemed to be at odds, was to attempt to form a non-profit tax exempt foundation which would function in a manner similar to a consumer finance company. By meshing the needs of the students and the investment community, we could perhaps satisfy both.

We are in the process of doing this now. The way the program works, is that banks, medical schools, philanthropic interests and private interests invest in certificates or loans. The Program for Research and Investment in Medical Education, called PRIME, then relends this money to individual medical students. We have been talking to the five Philadelphia area medical schools and have received an initial response from the dean's office of each school indicating an interest in listening to and supporting research on the program.

The repayment schedules which the individual students have are variable. As was mentioned before, they are progressive repayment schedules, starting from a base of $200 to $400 per year. The graduate decides how rapidly he will repay by choosing an annual increase in the base payment from zero to 29 percent a year. Each year, then, his payment will increase over that of the preceding year.

On the investment side of the finance company, we look to the banking community to invest approximately 70 percent of the funds which are required. These funds will be borrowed short to pay long - something which is contrary to the thinking of bankers today, with the exception of finance companies. Finance companies, as you know, borrow 90 day notes from banks, borrow 30 to 60 day commercial paper, and they relend this money to people with relatively high credit risks for three to five years.

We intend to extend credit for a somewhat longer period of time. Therefore, we intend to have approximately four times as many banks participating as we need. This will provide for adequate rotation of bank lines, and therefore liquidity. When one bank wishes to be paid out for a portion of the year, we can do so without endangering the program, as other banks will be asked to fill the gap.

Let me now discuss the interest rate which we are talking about. As I mentioned, banks were putting up 70 percent of the money. We expect the remainder of the money to come from the medical schools themselves, from private philanthropy, and from interested individuals. I don't think I will go into the details of that arrangement now, but if you will catch me later, I will let you know how it works. As you consider these three or four sources of funds, we can lend money to the student profitably, or I should say at the break-even level, at the rate at which we are able to borrow money from banks. Because of the structure of the program, we believe we can

borrow at or near the prime rate. We have talked with two Philadelphia banks so far, one of them being my bank, and have received contingent commitment for a one million dollar line of credit.

One aspect that is interesting about our program now is that it doesn't involve any guessing games about future income of physicians. We are using existing mechanisms of the money market today. The program itself has unlimited expansibility, depending on how many banks we are able to attract, and how many medical schools wish to be involved. We are very excited about the program. We are hoping to get it going by next September.

(Chairman Buesking) Thank you for that most interesting report. Now, before we open up for discussion, let me pass on the story that Bill Martin, who is a Yale trustee and a member of our Finance Committee, tells. You talk about borrowing short and lending long! You can imagine the problem of convincing him to borrow short and lend long.

It seems that the director of the deferred tuition plan at Diploma University turned into the medical school to be examined, and they concluded the only solution was a heart transplant. This shocked him quite a bit. But he said, "If that's all that can be done, that's all that can be done." The dean of the medical school said, "We have three hearts in the bank. We have a retired financial executive, we have a ballet dancer from Russia, and we have a Welsh boxer." Without hesitation the director of the tuition plan at Diploma U. said, "I will take the retired financial executive." The dean of the medical school said, "That's very fine, but you have two splendid athletic specimens that you have turned down. Why would you do that?" He said, "I want the one that has never been used."

Phil Reynolds says that that is really not so; that they do have a heart at Travelers and the other institutions with whom I have been dealing.

That concludes our somewhat informal remarks. We would like to open the floor to questions.

(Voice) I would like to know something about using variable interest rates, that we were talking about earlier this morning. It didn't come out in the discussion. It seems to me that a long-term, variable rate is quite feasible. Why isn't it?

(Mr. Kenney) Variable rates are becoming a reality. I don't know whether that means that they are attractive at this time, although people are becoming more receptive to considering all types of alternatives. One problem you have with the variable rate is that it puts the lender in an uneasy position because he does not really know where interest rates will go, and therefore, what his return will be. I think when a lender commits himself to provide funds for a long period of time, he wants to know what his return will be.

(Voice) But with these variable contracts, it seems to me he can accept a variable rate without risk. Why doesn't he accept a variable rate of interest?

(Mr. Johnson) It seems to me the question which should also be considered is to whom are we talking on the point of view of variable rates? If we are talking of an annuity or a type of investment where the return is going to be known as well as the cost, then there is certainly very little reason to have a variable rate. But if we are talking about something where there is a market rate of interest which will affect the supply and the demand for this type of instrument (i.e., a student loan), then certainly we should have variable rates.

If you look at the bank's experience with government-backed loans, the maximum interest rate, as you know, last year was 7 percent. What happened to the government student loan market when the prime rate was 8 1/2 percent? It dried up. I think if we had had variable rates at that time, you would have seen a lot more student loans marketed.

(Voice) Will you clarify, Mr. Johnson, what you were saying about the repayment part of your plan? You said something about starting at zero and going to 29 percent - of what?

(Mr. Johnson) The initial payment is increased a fixed percentage each year, from zero to 29 percent at the discretion of the student. It may start from a base of, say $200. So a payment which increased by 4 percent, the next payment would be $208.

(Voice) But you are simply paying back principal plus interest?

(Mr. Johnson) That is exactly right. The schedules that we have worked out were not based on income projections, as are Yale's. Our repayment, compared with the .4 percent per thousand deferred in Yale's plan, would vary between .2 percent and .65 percent, depending on the year in which the payment was made. It is an increasing fixed repayment schedule. In other words, the student knows when he signs the contract what his payments are going to be for the next twenty-five years. It may start out at $200, and end up at $2,000, but he knows what it is.

(Voice) Mr. Johnson, I have a question on the 30 percent funding which is not from banks in your plan. Would the amount that will be invested by a medical school come from their operating budget?

(Mr. Johnson) We don't tell the medical schools where to get the money. Actually, only about 5 percent of what we need are we seeking from the medical schools. I can't call it a token contribution because it is not, but the medical schools are allocated loan money on the amount of money which they are able to put into the program in a proportionate share. If we are not able to raise all the funds to meet the demand, we have to have some method of doling out the funds to the consortium of schools, and this is one rule that we have decided on. It may change as the program develops. But on the basis of our experience so far, this is what we plan.

(Voice) With regard to your PRIME organization, you have suggested that it would be like a finance company. How do you intend to organize? Is it under the Pennsylvania Consumer Discount Law or something else?

(Mr. Johnson) It will be a separate corporation.

(Voice) But under what particular jurisdiction?

(Mr. Johnson) I am not an attorney, so I don't know exactly how to address this.

(Voice) The question that I am raising is that if you do incorporate under a statute as a consumer discount company, a finance company if you will, there are so many restrictions involved that you can't do some of the things you have talked about, I don't believe.

(Mr. Johnson) First of all, it is a privately-owned organization, which I believe may have some bearing on that. Secondly, it operates somewhat like a finance company, but it is not a finance company. It is a selective type of organization, a non-profit, public foundation. I can't comment beyond that in as much as we haven't gotten the legal rulings yet.

(Chairman Buesking) This is an interesting device. I think Ford did some thinking about that idea, and we did ourselves at the time it appeared there would be a number of institutions going at the outset. We would form a separate finance and insurance company, a separate legal entity, incorporated under the laws of Connecticut or New York. We too had used the idea of each school paying in some capital. That was one way that would satisfy institutions, such as the insurance companies, which cannot deal with individuals.

We probably run into the same problem with some pension funds, Bob. I suspect they would have great difficulty dealing with individuals. They would prefer to deal instead either with the college or university itself, or an intermediary institution. Are there any other questions?

(Voice) Can you give a brief summary of the working relationship with the Chemical Bank?

(Chairman Buesking) Yes. We made a proposal to the Chemical Bank about the plan. We gave them a requirement of potentially $25,000,000 in short-term paper. In turn, they provided us with a commitment for the first year only. Future years are subject to further negotiation and to further agreement. That commitment for the first year is related to the corporate prime without regard to compensating balances. In other words, it is a straight relationship. We have no balances to get us a lower rate of interest. The rate is a fraction of a point above the New York "prime" rate, and will be re-set every ninety days on the first day of each calendar quarter. That rate will apply to the amount of debt then outstanding. We will make a drawn-down of new money probably twice a year. We have not made the first one yet, but are in the process of completing it.

Chemical Bank is expecting at the end of the five years that there will be alternative sources or methods of financing. The experimental phase would theoretically have prefaced some longer term arrangement.

We have two agreements about interest. The first is that Chemical requires interest to be paid quarterly. Yale will have the problem

of either financing interest out of its own working capital (and advancing it to the plan), or finding some other source of financing that interest. In the event we elect to refinance the interest by additional borrowing from Chemical, there will be a slightly higher factor above the corporate prime. Is that a fair statement of it?

(Mr. Hartmeyer) Yes.

(Chairman Buesking) The lawyers and financers both helped elongate that statement quite a bit. They cannot insure interest, so to speak. It would be a separate loan under a different agreement. But at the moment we are contemplating paying the interest currently and probably will advance it to the plan from Yale's working capital. But that is not a known fact at the moment.

(Voice) Do they have the option to call in the total amount outstanding in the contract period?

(Chairman Buesking) Yes. It is an obligation which we have pledged to keep unencumbered, unrestricted, and readily marketable -- I believe those are the three words -- assets that equal and slightly exceed the amount of the outstanding amount. However, it is a demand obligation. It is not a term obligation. If you go into term, you immediately start to get into the problem of fixed interest. You have disconnected yourself from current rates, and you are paying some premium for that fact. We are trying to achieve the lowest possible interest rate for the plan.

(Mr. Hartmeyer) We did discuss with Yale various possibilities. They elected to take the short-term, and roll-over. As I mentioned, we are morally committed to see it through the experimental phase. But these are very short-term loans, in effect. We were agreeable and suggested to Yale that we would entertain the thought of a commitment for five years for a larger sum of money. Because that would have involved commitment fees and other costs, Yale was content with a shorter time.

(Voice) Did Yale provide any collateral?

(Chairman Buesking) We didn't provide collateral <u>per se</u>, that is, we did not put in trust with Chemical any funds or assets. We did pledge to maintain unencumbered, unrestricted, readily marketable assets equal to or slightly greater than the amount that had been borrowed, and that is subject to verification.

(Voice) I gather Yale really borrowed on its reputation. My question is, how about a little school, not like Yale? Would Chemical Bank lend them the money?

(Chairman Buesking) Well, Chemical will have to say to whom they would lend money. I think practically any institution could go to a commercial bank and borrow under some circumstances. The less reliable the pledging assets, the higher the price is going to be. As long as we did not tie up our assets at Yale, we were willing to pledge, to get as low an interest rate as possible.

(Mr. Hartmeyer) You are right. You can't answer that question categorically. To us the strength of the borrower is very important in situations without an outside take-out or where repayment may be structured over many years to come. You have to look at each individual case and see the strength, the cash flow, and so forth, of the particular college.

A loan wouldn't necessarily have to have marketable securities behind it. It would depend on other factors, other pledges they have made, on real estate and everything else. But there are many ways to look at it.

(Voice) Out of what are you paying your interest? You said this is not part of the operating budget at all, but you are paying interest currently.

(Chairman Buesking) Not yet. It is the first of January.

(Voice) Well, you plan to.

(Chairman Buesking) When that point in time comes, if we do not borrow the interest separately from Chemical, we will probably pay the interest out of our current working capital and charge the Plan for having advanced that money to it. There probably may come a limit as to how much we will advance to the Plan, but perhaps Yale can carry interest until student repayments equal interest payments to the bank. If we look at the total, that figure of interest could run $3,500,000 to $4,000,000 before student repayments equal interest payments.

But that money is not lost. We would consider that as being income to Yale during the time it was advanced to the Plan, because the Plan will pay this contract formula interest that was devised, regardless of whether we put our own money in, or Chemical or Travelers money goes into the Plan.

(Voice) Does the bank consider listed equities of major corporations as readily marketable assets?

(Mr. Hartmeyer) Yes.

(Voice) At 100 percent collateral?

(Chairman Buesking) Ours is not 100 percent. We have agreed on a fraction above 100 percent.

(Voice) They do not have to pledge government obligations?

(Mr. Hartmeyer) No.

(Voice) You are gambling on the market.

(Chairman Buesking) The bank takes no risk. Yale will maintain an aggregate amount of pledged securities, and these will change with market conditions.

(Voice) Nothing has been mentioned about what seems to me to be the ultimate security behind this loan, and that has to do with the student

himself, the borrower from Yale. After all, Yale is only the middleman. Now, is the student's pledge of his future income of no value at all to long-term lenders?

(Chairman Buesking) That is a good point. It could be demonstrated in time, as part of this experiment, that the student's pledge may have some value. At the moment, it is not one of the pieces of security we are talking about, but hopefully it will be. Bob or Joe or Phil, does anybody want to comment on that?

(Mr. Reynolds) We have no history to go on. The value may be there. I am not arguing for or against that, but it is a question of making a determination to satisfy various people that the pledge of a student's future income is indeed good security. I think, in the absence of having either a history of that or of some way (the thought horrifies me) of doing a mass credit analysis, you have to look primarily to the middleman.

(Mr. Hartmeyer) You have to look to the middleman if only to keep rates down. In the present market you couldn't look to the students. But there is no doubt, I think, again over a period of time, that what you say will become true. For instance, in our bank now we make loans in specific areas where we have developed some knowledge.

We are lending, for instance, insurance premium financing for medical students. We are active in that because it is a market we have studied, and the history of medical students is that their prospects are good. Of course, in their early years, through medical school and on through internship, they are not making money. But this is a field we are actively financing. I think the same principle may work in the general college and graduate schools.

(Mr. Costa) We have heard some colleges have negligible default records on loans, whereas some have rather substantial ones. This needs to be clarified and explained.

(Voice) I don't really belong here, because I am an intern. I am one of the co-authors of the proposal which Wally spoke to. I am very intrigued by that comment. I think it strikes at the very core of the problem we are talking about, which I think relates to a philosophy of education. Namely, who is to pay for education?

I wrote a note to Wally while we were talking to the previous panel. I will read it: "The main issue which must be faced in the long run is how much of the true cost of education must be shouldered by the student. With the tuition postponement option, you can temporarily avoid this issue. Because it is not financially self-sustaining, you can't hope to run the university on TPO receipts. The TPO concept capitalizes on the student's lack of knowledge on future income. Whereas the PRIME concept (this puts me at issue with TPO, which I would like for the purposes of debate) openly proclaims itself to be self-sustaining, and it contracts to educate the student so that he will have a good income and therefore should accept the personal responsibility of paying for this personal gain."

In this sense the two concepts are diametrically opposed, if we think about investment in education.

It has been proved by some studies that education is a good investment, specifically medical education, and even college education. Killingsworth has done a study. In 1946 Milton Friedman in Chicago observed that the return on human investment was far better than return on investment in machinery, and therefore education was a good investment.

Translating that to a student loan program, can we expect the student to pay the loan back? My feeling is, no, we can't expect the student to pay the loan back until we commit ourselves by saying to the student, "This is a good investment for you. We expect you to shoulder a significant part of the cost of your education. We will provide you with the money that you need to do this, but it is your responsibility."

I think in that sense it is confusing if you think about the tuition postponement option as a total "gestalt" for plans for higher education. What it really, as I understand it, is a method of payback. It is not an overriding innovation concerning who pays for education. I think you have to face that issue.

(Chairman Buesking) I would disagree with you slightly. TPO does assume a marked shift in the burden of financing from the taxpayer, the parents and the philanthropist, to the student. I think TPO is as self-sustaining as the plan you and Wally described, except you said there may be some practical limits on whether that is a third or a half or 100 percent of educational costs. But whatever segment is involved, it is still hoped to be predominantly self-sustaining.

On the student paper, it would be my hope that in a very short period of time, two, three, or four years, we would have some of the data about repayments that the financial institutions are looking for. I think that data is there now, if they would care to look. Yale and other schools have had conventional loan programs for decades. We have experience on mortality and income profiles which contributes to the "character" of our own student "papers," when such becomes a reality.

(Voice) I would be curious to have the financial representative comment on Wally's plan, and especially about the incentive of why a backer would like to get involved in that kind of program. Because it seems to me the critical element is the fact that he is dealing with medical students, or conceivably that he might deal with business school students; but that is a different situation from dealing with students in anthropology or history or some other field.

(Mr. Kenney) I have to admit that I don't at this point thoroughly understand the plan as proposed, so I don't think I am in a position to comment. But I would say that a plan of this type might apply to medical students because of their higher earning ability.

(Chairman Buesking) I have difficulty with that one, because all we are talking about is the term and the tax rate you might use. If the

anthropologist's income is lower, we might not use a .4 percent tax rate. We might use .6. But there is just as valid a group of assumptions that you can make for the anthropologist as the doctor.

(Voice) But will it be considered satisfactory security for the bankers when they are putting up 70 percent of the money?

(Chairman Buesking) There is no less security with the doctor as with the anthropologist. Each one has to be predicated on knowledge about that particular group. It will be our job to demonstrate the economic viability of each.

(Voice) The doctor, he can practice no matter where he is. He is much easier to follow. You can keep track of where he is.

(Mr. Johnson) This is right. This is why we wanted to get our feet wet with the medical community because we know that we can find doctors. Between the American Medical Association, the other medical associations and the schools, we can find them.

Secondly, the program is a conventional loan program, in the sense that the student signs a note which is legally binding, and which can be followed in court for collection.

Thirdly, if you look at the default rates on loans to medical students in the Philadelphia area, which is all we looked at, to be honest, it is in the neighborhood of one-half of 1 percent. We feel, because of the way the program is structured, it is going to continue at that rate. That, incidentally, compares with a default rate on finance companies' loans in the neighborhood of 4 to 7 percent.

(Voice) I would think that some of that uncertainty about the anthropology student versus the doctor would have been taken into account in coming up with the parameters in the income profiles and the response of the alumni.

(Chairman Buesking) That's right. The particular earning capacity of the individual is the primary variable. If you build a profile for a doctor and try to apply it to the anthropologist, it won't work.

(Voice) My point is that Yale is presumably putting up 100 percent security for the money they are borrowing from Chemical Bank, whereas PRIME's banks are seeking only 30 percent. Is Yale so much a poorer risk?

(Chairman Buesking) We could have gone the same route and achieved the same situation under the laws of the State of Connecticut. We could operate this plan under a conventional finance company mode and use the leverage, if you will, of the paid-in capital (from our endowment funds or philanthropy or foundations) in order to go borrow money from commercial banks. We wanted to avoid the finance company route, at least at this time.

(Mr. Hartmeyer) There is a difference here. I see what you are driving at. First, there is no set repayment schedule. Repayments are

based on income. If all the students decided to sit on the beach, where does repayment come from? Secondly, the way it is set up, we have no control over Yale's followup on the individual loans. If Yale never collects a dime, that is not part of our obligation. We are looking at it the way it has been set up by Yale. Thirdly, we look for security because it is experimental. We are a commercial bank. We do not wish to be in there for thirty-five years, so we have this as protection, as a way possibly, if the plan failed in five years, as a way to get out.

If things develop and a long-term market appears, well, fine. We may make changes as we go along, depending on experience.

(Chairman Buesking) I might also add that ours is in existence. This one (PRIME) is still being brought to fruition. It will remain to be seen whether or not they get the paid-in capital; and secondly, whether the banks in fact sign the commitments to give them the loan capacity, partially secured with unsecured notes from students. The latter is an untested thing at the moment. It is untested here. We want to test it.

(Mr. Hartmeyer) As Wally stated, there is also the 30 percent capital investment from the institutions and from individuals. This represents an investment that could be lost, and this is protection for the banks. We are lending 100 percent to Yale. Yale's organization is not a finance company, where the bank looks at how much money is behind a subordinated loan. In that kind of set-up you have got ratios that have to be maintained, and you have investors to put in additional money in one form or another.

(Voice) If this was indeed not an income loan but a conventional student loan over a long period of time, of what value would the student promissory note in the contract be to you for financing? Then you would be able to pledge student loan contracts or notes to the bank.

(Mr. Hartmeyer) I am not prepared to say exactly how much difference it would make for an income-contingent loan. It would make a significant difference under a fixed obligation.

(Voice) How much of a difference are you talking about? Would you require a pledge 100 percent of what they borrowed, or could you use 50 percent terms in the contract?

(Mr. Hartmeyer) I am not sure on that, the way it was set up. If we are talking about thirty-five year financing, it would not be in our interest to be making a thirty year loan under any circumstances. A bank commitment for a loan of over ten years would have some very restrictive provisions, I'm afraid.

(Voice) In that case the student's pledge would be of little value.

(Mr. Costa) You are talking about an individual type loan. Student loans right now to individuals, even on a relatively short base, have been guaranteed in most cases by the state or federal government. The individual going to his bank would be something else again.

(Chairman Buesking) I suspect the discount would be fairly high right now.

(Voice) Dr. Spears indicated a few minutes ago that there is practically no loan limit to the individual medical student. He could also borrow from the TPO. On what basis will you determine need at the graduate or professional level?

(Mr. Johnson) There are two things, first of all. While we say there is no limit, there is obviously a limit. You have to analyze each individual applicant. He has a certain number of resources, a certain number of loans. Because the PRIME concept is probably the most expensive source of funds, he is probably going to come to this group last. He will get his scholarships, his grants, and maybe a 3 percent AMA-ERF loan if he can get that. And lastly he will come to us.

We would expect somewhere in the neighborhood of 25 to 40 percent financing, perhaps less in some cases. And the maximum, of course, would have to be set by analysis of the cost of education at that particular school.

(Voice) Concerning the comments the gentleman made who was the co-author of the Girard Bank Plan, is there an inherent part of the PRIME plan to pass on a larger share of the total cost of his education to the medical student?

(Mr. Johnson) No. That is up to the school. We do not purport to tell the schools how to treat their tuition increases or decreases. We want to remain completely independent. As has been said before, there are two different things. Schools are faced with needs for increasing money. They have to satisfy their demand in some way. If they need to increase their tuition, it has little to do with the PRIME concept.

(Voice) May I comment on that? That is something I touched on before. Even if the money became available, if the student has to get $5,000 to go to Penn and $3,000 to go to Harvard, he would certainly go to Harvard for financial reasons alone.

(Chairman Buesking) That is a very good point. We faced the same problem. We talked about raising tuition $1,000 for the current year, and offering it under TPO. We decided we couldn't afford to do that in the marketplace, because the people with whom we compete weren't going to do anything like that. So there is a practical limit set by your cohorts as to how much you are going to pass along of the full cost of education to your student body.

You heard at least two plans described here today. There are many others. Each institution will tackle a plan to fit its own needs, but student loan schemes get at only part of the financial problems of higher education.

A large group of institutions is going to press for increases in gifts and grants, the public ones in particular, but the private ones as

well. There are extensive lobbies at work to develop acceptable Federal funding such as the per capita provision in Edith Green's House bill. Finally, some schools are trying to improve their managements. Those who attempt to improve their management, and the management of their resources, as well as those who do a little innovation on their own part, will need a fair amount of ingenuity and hard work to develop an approach that is appropriate for each of our institutions.

We at Yale do feel that the area of innovative student loans is an important facet of the solution to the financial problems of higher education. We are not here today to try to sell Yale's solutions, but only to develop a dialogue which will help us all. This Financial Panel has been one attempt to provide an exposure to the ideas of other people who have worked on this problem.

CONTINGENT REPAYMENT PLAN - YALE GRADUATE SCHOOL

Donald W. Taylor
Dean, Yale Graduate School

(Chairman Buesking) This morning we have got two or three groups of people who will talk with you. Mr. Donald Taylor, who is Dean of the Yale Graduate School, will discuss the particular application of our plan to the Graduate School.

I should say that we have more than one plan; we have three. One is for Yale College, one is for the Graduate School, and one is for the Professional Schools. The basic characteristics of each of the plans are identical. However, the amount of money that is offered and some of the conditions under which funds are offered vary among these three plans. That is the reason for separate plans, which really are identical, except for certain peculiarities and considerations in the Graduate School and Professional Schools that were not present in the College.

After Mr. Taylor has talked with you, we have two representatives from Duke University: Mr. Beatty, who is the Assistant Director of Financial Aid at Duke; and a Graduate Student and Research Assistant, Mr. Ferebee, who will spend fifteen or twenty minutes discussing with you the efforts that Duke has made in this area. Then we will have some alternative approaches to our particular Tuition Postponement Plan. There are probably infinite numbers of people involved in developing these things. You will have a chance, then, to discuss at some length, various alterations of the basic plan we have been working with.

Don, would you like to come up?

(Mr. Taylor) As Mr. Buesking has said, the plan in the Graduate School in one sense is quite similar to that in Yale College. At the same time, it is, in a number of respects, quite different. As I understand it, my function here this morning is to explain to you the differences in the Graduate School plan, and some of the reasons for those differences.

Some of you, I suspect, are directly involved in admissions and financial aid in a Graduate School and are already aware of some of these differences. But for the sake of this discussion, I would like to review briefly why it was that we thought we needed a rather different approach in the Graduate School from that in Yale College, what some of the differences are, and what the results are that we have today.

The first thing that is true of financial aid in the Graduate School as compared to financial aid at the undergraduate level -- and indeed, I think, in theory, in any other graduate level school -- is the complexity of the sources of support for graduate students in arts and sciences. If you look at the undergraduate financial aid budget, it consists primarily of money administered by the University plus some endowment funds. At

the graduate level, we have some endowment and some general appropriation, but these together represent only about a third of the funds which in one way or the other support graduate students. The total budget is something on the order of $8 million, of which only two million is from the general appropriation. Because financial aid comes from very different sources, the problem of how one uses contingent repayment is complex.

Perhaps more important is the rapidly changing nature of funds available. Probably I should have said that financial aid for graduate studies has come from many different sources, but they are becoming fewer and fewer. The important fact which faces any graduate dean is the loss in outside sources of support for graduate students. The peak in Federal financial aid, for example, occurred in 1968 and 1969 on this campus as on other campuses. In the period since then, we have gone from a high of something like 700 graduate students supported by various Federal fellowships to roughly half that in another four years.

We are also losing outside support in other areas. For example, there is no more Woodrow Wilson support. The New York State Regents fellowships are no longer available on the graduate level. The net result is that over the next two to four years we may lose fifty percent of our outside support for graduate students. And I say "we", meaning not only Yale, but many other graduate schools.

As a first adjustment to this loss of outside support, we cut admissions by thirty percent a year ago and held it at that this year, simply because of the financial aid problem. If you look at the University of Wisconsin, Harvard, Princeton, Brown, Stanford, and a number of other of the larger graduate schools, you see the same picture in terms of the problem for support for graduate students.

The point of this, for present purposes, is simply that we could not say in the Graduate School, as was said in the College, that Yale would continue to provide the same amount of financial aid that it has provided in the past, and that the Tuition Postponement Plan would be used to cover the increase in tuition year by year. We are no longer in the position to continue to provide from any source, the same amount of financial aid that had been provided in previous years. In fact, we had to look forward to next year and the year after, in which we would face a rapidly diminishing total amount of financial aid for graduate students. So we could not describe this as simply a plan to cover the increase in tuition this year, next year and the year after. Instead, we were facing the much more serious financial aid problem which this would hopefully help alleviate.

There are many sources of support. Some of these sources cover the tuition, whatever it is, including the increase. If a man is on an assistantship in research, then the assistantship in research covers not only his basic stipend, but his tuition increase. Tuition postponement is not relevant there, in any case. If he is on a fellowship with cost of education, where the University gets $2,500, my budget is required to cover that difference. This year, for example, I would have to award a $400 fellowship to every student on a Federal support grant which has a

$2,500 cost of tuition provision. This again is a difference growing out of the complexity of sources of support. Many other sources cover tuition or provide for cost of education payment, with the result that we can not ask the student to meet the tuition increase.

A further point which I should mention, is perhaps a minor one; the nature of fellowship aid in the Graduate School is such that whether one likes it or not, it would not be very popular either among faculty or among students to talk about postponing tuition. I am afraid in the recent affluent times of the past ten years, in at least many major Graduate Schools, it has been expected that the tuition would somehow or another be covered, if not by University Fellowship, then by other sources. To call it the Tuition Postponement Plan is simply not appropriate. Hence, in the Graduate School, we use a different name, as you have already seen on your program. It is, I think, in fact the original name of the plan, namely, the Contingent Repayment Plan.

We emphasize not only the postponement of tuition -- although, in fact, part of the tuition has been covered -- but rather, the contingent repayment of a part of the educational expenses. You may think that this is simply a difference in semantics. Perhaps, it is but it does seem to be important, not only to students but at least to those graduate deans with whom I have the most contact. We never refer to postponing tuition in the Graduate School; we always talk of contingent repayment of a portion of educational expenses.

There are some other things which affect the situation. One of the important facts about the Graduate School, in comparison, at least to many undergraduate colleges, is what one may label the difference in attrition. We, for the most part, accept only candidates for the Ph.D. Of those that begin work for their Ph.D. about 55 percent eventually get the degree. That may seem low to those of you who work at the undergraduate level, but at the graduate level 55 percent is a high completion rate. It may often be much lower than that. If it is true that one's sense of obligation is partly a function of whether one has something to show for having spent time here, then perhaps we must worry more at the graduate level. Of those who participate, little more than half will eventually have the Ph.D. Of course, many more of those will have the Master's Degree. The largest attrition appears at the end of the first year; a quarter do not return for the second year. The figure varies at one time or another, but it does affect one's thinking about the plan.

The Tuition Postponement Office asks us when the student begins participating, "What year is he going to get his degree?" That is a reasonable question to ask at the undergraduate level, and one can predict with at least moderate accuracy. It is a difficult question for anybody in Ph.D. programs. The time for the degree varies anywhere from three to eight years; hence, we provide an estimate and hope it is somewhere near right. But one of the things that must be recognized is that it is a less accurate prediction than is possible at the undergraduate level. In the Law School, Divinity School, or other professional schools, the time of degree is not so highly variable.

Another difference, between graduate and undergraduate work is the sense of competition which faculty members feel. I suppose that members of the Yale faculty want to compete for the best undergraduates. But in some sense, this is left to the Admissions Office to worry about. This is not true in the Graduate School. Applications are submitted to my office, but they are then distributed to one of thirty-six different departments. Each department has a personal involvement in these applicants. There is competition with our sister institutions to get the best students. This means that there is a degree of faculty involvement in the admissions process that I suspect is unmatched, either at the undergraduate level or in the other professional schools. The result is that, as we talk about this plan, one of the things that we immediately want to know is what is Princeton doing? What is Harvard doing? What is Stanford doing? Michigan? Illinois? Wisconsin? Because those are the graduate schools that members of departments feel they are in very direct competition with for the best students. Whatever we are doing ought to be as competitive as possible.

It was for this reason that, more than a year ago, I originally took the position that the Graduate School was the one part of the University in which contingent repayment was less appropriate. This argument was fairly persuasive, I think, locally, until the Ford Foundation took the view that the Graduate School was the one place in which this plan might be most appropriate. At that point, I lost the argument. I am not entirely sorry that I did.

I did feel, however, that if the Yale Graduate School was going to be in it, then it would be nice if at least eleven others were, also. So I was glad to participate in conferences in New York City with deans of eleven other Graduate Schools. I hoped that these eleven others would become involved and we would all have a rather similar plan so that we could reduce this competitive factor in the operation of this plan. Quite frankly, some of the features of the plan that I will describe, were developed with one eye on those eleven other graduate schools and what they were doing and what they would be likely to do if they were going to introduce it. But it was my hope that for competitive reasons, the procedures we adopted here would be attractive at Princeton, at Stanford, at Rochester, so that the student would not be choosing amongst these institutions in terms of the details of particular plans, at least as he saw them.

The choice of the name was one thing involved here. There were other things. For example, Princeton had two years ago, facing the same kind of situation we faced here, introduced a new set of financial aid packages. We came to call them A, B, and C. Princeton said, "We will have in effect three kinds of packages of financial aid, at least from university sources: one will be Package A, which will be an $1,800 fellowship stipend, plus tuition." This has been sort of the standard university fellowship package in Arts and Sciences across the country. "Package B will be $900, plus tuition, plus a $900 loan. And Package C will simply be tuition plus the opportunity for an $1,800 loan." This was an attempt by Princeton to adjust to the fact that their funds were simply much less adequate than they had been a couple of years earlier, for the reasons I have described. We tend to refer to this among graduate deans as "The

Princeton Plan" (a different Princeton plan from one that was also being talked about at that time, but which now, I guess, is mostly forgotten -- the one having to do with vacations for elections).

As we thought about modifying our financial package, the Princeton plan looked attractive, partly because it seemed reasonably easy to administer, and partly for the reason I have already mentioned; if we were going to introduce contingent repayment, we would like to do so in a way that would seem reasonable to other schools and then we would all have similar plans.

The loan in the package at Princeton was a conventional loan from university funds. In the first years at Princeton, the percentage of acceptances by those offered admission with Package A was just about the same or a little lower than the percentage of acceptances by those offered admission with Package B or with Package C. In other words, it was not true that the variation among the three packages resulted in large differences in the acceptance rate. As we began our planning, we began thinking in terms of these packages and in terms of the use of conventional loans.

Facing the financial problems I described, I set out to raise some conventional loan money by obtaining gifts from alumni before we were really well into considering contingent repayment. As a result I had the possibility of doing in the Graduate School what has not been done in either the College or the Professional Schools at Yale, namely, to include in our program, the use of conventional loans as one of the alternatives. The conventional loan being employed is a six percent loan with interest beginning after the student completes his work at Yale or leaves without completing it.

I had with Mr. Tobin, whom you have already heard, a rather vigorous discussion of choice of an interest rate of six percent. Professor Tobin objected that if you were going to offer students a choice between the Contingent Repayment Plan and a conventional loan, clearly, six percent for the conventional loan is not economically equivalent. He argued that you ought to arrange things so that the interest rate on the conventional loan would be the same as the effective interest rate under the Contingent Repayment Plan. However, I argued that if I were trying to raise funds from alumni for loans, as I am doing with some success, seven percent interest rate, or seven and a half, or even an undefined interest rate with regard to conventional loans, might raise objections from the alumni being persuaded to provide money for this purpose.

In addition to the competitive situation which I have already talked about, where other schools are using conventional loan money at six percent, made six percent preferable, even though I knew that this would in some sense ruin the economic experiment which we would have had if we offered the choice of a conventional loan at the same interest rate as that of the Tuition Repayment Plan. We give the student the choice of a conventional loan at six percent, or the Contingent Repayment Plan at whatever the interest rate turns out to be, for somewhat pragmatic reasons.

This description of the Contingent Repayment Plan in the Graduate School is for the entering classes. What about the second year student, the third year, the fourth year and the fifth year? I would simply mention that for students who are now in their second year, the plan is very similar to that at the undergraduate level, in that the $350 tuition increase plus an additional $300 is obtainable through CRP.

But, let's focus on the first year, which I think perhaps is of most interest because it is the kind of plan that, I suppose, if it spreads to the other Graduate Schools, is likely to be attractive. This fall, we had something like 5,000 applications. We offered admissions to something less than a thousand people. Some received national fellowships. The number of offers of A, B, or C was such that about 100 accepted the B package, and about 100 accepted the C package.

Those offered B packages, for example, received letters which said that, "You will receive tuition, a $900 fellowship and if you like, you can take out a conventional loan at $900, or you are authorized to participate in the Contingent Repayment Plan." Only those people may participate in the Contingent Repayment Plan who have been specifically authorized by such a letter. It is not a blanket option.

You may aks, "Why didn't you extend CRP to all graduate students?" One problem was the total amount of capital to be required. We did not really know what would happen in the first year, hence we limited the participation. We may be able to extend participation next year if capital is available.

As I have said, something like a little more than 100 people accepted B, and something like a little more than 100 accepted C. Those that accepted it and actually registered at Yale had until November 15 to decide whether or not they would take a conventional loan, or Contingent Repayment, or would divide the amount they wanted between the two. This is the choice feature which is not common to any of the other plans at Yale thus far.

It is a little more complicated than that, because we also have available in the Graduate School, more NDEA loan money than we expected to have. As you know, NDEA loan money has advantages in terms of lower interest rates, in terms of the fact that under the law as written to date, up to fifty percent of the loan may be forgiven if one teaches up to five years, or spends a certain amount of time in the service. Having the NDEA loan money available, we took the further step of offering students who had been authorized to take $900 or $1,800 -- $450 in the first term and $450 in the second term -- the choice between the Contingent Repayment Plan, the NDEA loan, and the conventional loan. My assumption was that all those who were eligible for NDEA would take it. (As you know, there are certain eligibility requirements for NDEA. You cannot, for example, have been listed on your parents' income tax during the previous year.) We said, "If you are authorized to take $900 in the first term, you can have half of it through NDEA, if you want it, or you can have all of it through conventional loan, or all of it through the Contingent Repayment Plan."

A total of 205 people in the entering class were authorized to take B or C. Of these 205 people, 66, or 32.2 percent, took the Contingent Repayment Plan in some amount, not necessarily all of it through the Contingent Repayment Plan. For the conventional loan, 45 people or 22 percent chose the conventional loan in some amount. This was just the reverse of what I had predicted. My prediction was that the preference would be for the conventional loan. Mr. Tobin was unhappy because we were giving the advantage to the conventional loan with six percent interest. I doubted that entering Yale graduate students would be able to figure out the difference in interest rates between these two plans, not even those entering in economics. But this result is just the reverse of what I expected.

But what I do not understand -- and I received this data yesterday, so I have not had time to explore it -- is that the total number taking the NDEA was 31, or 15 percent. Some may not have been eligible because they were not independent of parents by the criterion of not being listed in one's income tax. Whether that is the full explanation, I don't know. But I was frankly predicting that NDEA would be the most frequent choice, conventional loan would come next, and Contingent Repayment would come last. How wrong can you be?

The acceptance rate for CRP here of 32 percent overall is high. The interesting thing is that the acceptance rate for the C package is 35 percent and for the B package, 30 percent. If you ask, "If they took some combination of CRP, NDEA and conventional loan, how much did they take", the answer is that the number taking CRP is 66, NDEA 31, conventional loan 45, and there is some overlap -- 111 different individuals took some combination of this. One-hundred eleven, then, representing 54 percent of those that were eligible, took some combination.

It is rather interesting that in the first year at Princeton when they offered conventional loans to all students, 55 percent actually took up the loans. A kind of needs test is involved, I suppose. If you assure graduate students the opportunity to borrow, it is not true that 100 percent of them will borrow. As compared with 55 percent at Princeton last year, the comparable figure at Yale happens to be 54 percent at this point.

This percentage does not necessarily mean that the students did not borrow somewhere. Instead of borrowing from Yale or NDEA, maybe some of the students are borrowing from Aunt Lucy or even from Dad. One of the things we hear a great deal about is graduate students wishing to be independent. One of the most controversial issues at the graduate level is called the emancipation issue. It is being hotly debated nationally, as we move to more emphasis on need in awards of graduate school financial aid. A little unkindly I sometimes say that graduate students do not want to be emancipated or independent, they just want to transfer dependence from Dad to Yale or to the Federal Government. One of the things that the new plan provides is the opportunity to be independent of Dad by borrowing through CRP.

Given 111 individuals, roughly half of whom are authorized to borrow $900 ($450 in the first term), and half of whom were authorized to borrow $1,800 ($900 in the first term), how much did they take? Those authorized

to borrow $450 in the first term actually took $447. Those who borrow some combination actually take the full amount. Those authorized to borrow $900 in the first term actually borrowed $888. That again, frankly, surprises me. I did not expect that all of them would take the full amount for which they were eligible, particularly in the first term.

Briefly summarized, of those eligible to participate in some combination of loans, more than half did borrow or participate in Contingent Repayment. The most frequent choice was Contingent Repayment, and of those participating in one or more of these, essentially all obtained the full amount available.

I will be glad to answer questions or have comments.

(Chairman Buesking) I might add one observation to Don's comments about their taking near the maximum. The same thing was true in Yale College. I believe 80 percent of those who deferred or postponed tuition, took the maximum amount that was available, which was quite a surprising thing.

(Voice) You told us that you had 100 plus in each of categories B and C. How many did you have in category A, and what percentage of the total admitted do A, B and C represent?

(Mr. Taylor) Yes. We had 100 plus in each of B and C for a total of 205. I think it was actually 100 and 105, essentially the same. The number in A was again about a little more than 100 In other words, we offered roughly a third, a third and a third of A, B and C. This happens again to be similar to what Princeton did with their conventional loan plan in the first year.

About 52 or 53 percent of those offered admission to the Graduate School actually accept. It was 53.5 this year. Of those offered Package A, 55 percent accepted; Package B, 60 percent accepted; and Package C, 60 percent accepted. Again, this is not greatly dissimilar to Princeton's experience, using conventional loans.

Are there other questions? Yes?

(Voice) Just another observation. I am from Amherst, and my colleagues here from Wesleyan were just saying, as you were giving us these figures, that this is almost precisely our experience at the undergraduate level percentages. And the fact that when they borrow, they also borrow the full amount. I guess I am surprised that that would not have been Yale undergraduate experience.

(Mr. Taylor) I am not familiar with the Yale undergraduate experience. I am told that at the undergraduate level, that when they borrow, they borrow close to the full amount. Is that right?

(Chairman Buesking) Yes.

(Voice) But the 54 percent is very close to what we are finding for students offered loans who actually take them.

(Mr. Taylor) Are the percentages up to date for the undergraduates?

(Chairman Buesking) Yes. About 52 percent of the College is on aid of some kind, either government scholarship or conventional loans, which is based on last year's figures. The financial aid package did not increase with the increase in tuition. The entering freshman class was offered TPO to cover the increase in tuition. Thirty-two percent of the freshmen took TPO.

(Voice) Yes, I was thinking non-TPO.

(Mr. Taylor) Oh, our conventional loan experience at the undergraduate level?

(Voice) Your experience before you went into TPO.

(Chairman Buesking) I will have to ask Ralph Burr or Larry Noble.

(Mr. Burr) I would guess that students taking loans on the undergraduate level was higher than 55 percent on the conventional loan. Would you agree with that, Larry?

(Mr. Noble) Yes.

(Mr. Taylor) Are there any other comments or questions?

(Chairman Buesking) Don, could you make any observations about the consortium problem, the eleven graduate schools getting together? We discussed it a little yesterday. There is a group here who is working on, I believe, five medical schools in the Philadelphia area, and I believe we have got somebody from Wharton here who worked on the medical school consortium. What do you see as the outcome of that or any potential that would be useful.

(Mr. Taylor) I reply with uncertainty. We have a group called the Nine Dwarfs. It started out as seven, and then Stanford and Berkeley were added. In addition to Stanford and Berkeley, it includes Harvard, Yale, Princeton, Columbia, Cornell, Brown, Chicago.

The deans of these nine schools are the Nine Dwarfs, a group which has been in existence for a number of years. As the problems get tougher, we seem to meet more frequently and become more cooperative. But none of the other eight are yet about to adopt Contingent Repayment, insofar as I know.

It is hard to say how much interest there is in the Contingent Repayment Plan. I know that one graduate dean is very actively exploring it and I have supplied copies of all the memos that we have had to send out here and the contract and the rest of it. And there are others that have expressed considerable interest, but I don't think there is anything approaching the consortium kind of interest in graduate schools of arts and sciences yet.

(Voice) What seems to be the major reluctance of the other eight dwarfs to get into the CRP plan wholeheartedly, as you think?

(Mr. Taylor) There is no single reason. The situation at Berkeley, for example, with respect to admissions and financial aid, is just markedly different from Princeton, and Princeton, in turn, is different from Cornell. Princeton makes much more use of university funds for fellowship aid than does Berkeley. Berkeley has many more teaching assistants, assistants in research, national fellowships; CRP may therefore be less widely applicable. There is also the fear, particularly in state institutions, that the local State Legislature will view the Contingent Repayment Plan as an alternative to funds that have been provided for other kinds of assistance. The fear of what State Legislatures might do is one of the reasons for reluctances.

This problem is not peculiar to the Contingent Repayment Plan. As you know, there is quite a debate going on in Washington at the moment concerning general institutional support: the Pell Bill versus the Green Bill. Where the Pell Bill essentially makes undergraduate and graduate institutional support contingent upon other kinds of Federal aid going to the institution, the Green Bill ties one-third of the institutional support to such Federal support, but then makes the other two-thirds simply dependent upon the number of students you have. I happen to think that is a bad idea, because that would just encourage more and more graduate work without respect to quality. But the reason for mentioning it in this context is that many institutions, I think, feel quite appropriately that that per capita form of support will be viewed by the State Legislature as a substitute. And there has been some effort to write into the bill provisions that would insure that the state support will continue at the same level as before the per capita support was provided. I frankly think that is impossible. If you were dealing in terms of a constant dollar, it might be possible to write legislation that would say that the State Legislative support will continue to be the same that it was per student before you got the $300 extra. Given inflation, I think that is doomed to defeat.

(Voice) What kind of attitude problems did you encounter at the graduate and undergraduate level when students were informed that any additional increase in tuition would not be offset by an increase in stipend?

(Mr. Taylor) That question has to be seen in a larger context. I became dean only two years ago. It was apparent that we were facing about a half million dollar deficit. Having entered the office in August, I had to send almost immediately a memorandum to all the faculty describing the problem and to begin discussing it with students. That was two years ago. I am afraid there has been a fairly steady stream of memoranda from my office over the past two years, some twenty in number, to chairmen of the departments, to members of the faculty. The crisis in financial aid to graduate students is a familiar problem to most students. There is, in fact, a Task Force in the Graduate Student Center which is in the process of taking a hard look at what we have been doing. One of the things that we were forced to do was to change our financial aid policy: whereas three years ago, any student entering the Graduate School was assured of at least

equivalent financial aid over the four years, with regard to the class that entered a year ago, that commitment is no longer made. There was a two-page memo on financial policy sent out to all the students involved before they even arrive at Yale. It was in the context of that policy that we made the specific decision that you refer to. Some are unhappy about it. But they have been warned that we were facing problems.

(Voice) Sir, concerning your comment a few minutes ago about State Legislatures, in your own personal opinion, do you think that the Contingent Repayment Plan is a tool, in light of the increase in cost, particularly in professional schools and graduate schools; is it a tool whereby a larger share of the cost of education can be passed on to the student?

(Mr. Taylor) That is a complex question. I will have to give you a partial answer, or at least say something. There is a very real danger that Contingent Repayment at the graduate level will be viewed as the solution to what is a very difficult problem, namely, this rapid cutback in support to the graduate student. I had a phone call from Washington on September 7. I can still date it, you see, because it was that much of a shock. There were hearings going on in Washington as to whether or not the training grants should be continued. The training grants are those grants made by the National Institute of Health and Mental Health, particularly in the biological and social sciences. We presently support 180 graduate students at Yale on training grants; if we would lose them, it would be a sizeable problem. What shocked me was not the fact that training grants were under attack, but that -- I guess I had better leave him nameless -- a senior respected individual in Washington, in summarizing the whole picture, ended up by saying, "At Yale and at Princeton, they have developed these new loan plans and really, this may solve the problem." Well, needless to say, that was a long telephone conversation. The man I was talking to came to New Haven two days later and spent two hours --.

I am trying to emphasize the fact that Contingent Repayment is an important resource for the Graduate School in alleviating a very difficult problem. I do not regard it as the solution to financial support of graduate students. We have to have many kinds of support.

I do not know precisely what it costs the graduate student a year at the moment, but the full cost of expenses must be in excess of $5,000. It requires a median time to complete the degree, five years, and that is lower than some Graduate Schools. If he pays the entire cost through Contingent Repayment, he would have borrowed $25,000 at four-tenths of one percent. He would be paying 10 percent of his income for at least the next twenty-five years. That simply seems to me to be too high. In other words, I personally think it is reasonable for the graduate student to carry part of the cost of his own education, but the question is how we make it available within institutions to provide part of the cost, and at the same time not making the difficult problems worse.

(Voice) I was specifically referring to public schools in which case the tuition levels were already much lower. In other words, shifting programs by increasing tuition in some of the public schools, it would still not bring them anywhere near your tuition level.

(Mr. Taylor) I believe the out-of-state student at Berkeley this year is paying $1,900. If you are talking out-of-state fees at the graduate level, they are already fairly high. I would give about the same answer there that I would give for the private school, namely, I think it can be useful as a supplement, but in making it an effective supplement, you need to be legitimately concerned about a variety of other sources, federal sources or foundation.

(Voice) Is this 30 percent cut in registration or enrollment that you mentioned, was that an across-the-board cut in arts and sciences? And what was the faculty reaction to such a decision?

(Mr. Taylor) Vigorous. As I say, I sent that first memorandum, I think it was September 10th. Then there were three months of discussion as to what different steps -- I think we mentioned twelve different steps -- to be taken. I will not try to describe them here. You can have the memorandum if you are interested. On January 20, I reported to the faculty at an open meeting that the Executive Committee had voted to instruct the dean to reduce the size of the entering class by some 20 to 30 percent. It actually turned out to be closer to 30 percent, because subsequently, there were additional losses in outside support.

The method of selecting admissions to Graduate Schools does differ largely. It happens that at Yale, the target for an entering class and the number of offers to be made, is set by the dean in consultation with each Director of Graduate Studies, and the Chairman, if he wants to come along. Over the following four months, I met with every Chairman and Director of Graduate Studies to discuss this reduction. Some departments were not too unhappy about it; some were very unhappy. I spent two hours with the entire faculty of one department discussing the reductions that were necessary. In that year, the reaction was vigorous, for it was not yet perceived that the financial problems were more general than those of the Graduate School, and the feeling was that the Dean of the Graduate School should ask the administration for more money. In retrospect, it is a little more apparent why that was not feasible even then.

(Voice) You have been cutting back on admissions, but what has been the trend on applications?

(Mr. Taylor) There has been some reduction in applications for admissions to some institutions I happen to know about. That may happen here. Two years ago, we had about 5,000 applications; last year it was about 5,050. We have experienced no reduction locally in the number of applications, in spite of the changes that we have had to make and what we can say about financial aid available. There are major graduate schools that are experiencing 10, 15 percent reductions in applications.

(Voice) On that same area of the earlier question, you said the student would be paying 10 percent of his income if he were allowed to use CRP to pick up the total cost of his Graduate School education. But isn't that a lesser cost to the student than not being accepted in the first place, if there had not been some sort of funding to give him that option?

(Mr. Taylor) I always find myself in the middle when I am asked how I arrive at the 10 percent as the upper limit. I simply find 10 percent on top of our present state and federal income tax too high. I do realize, as Mr. Buesking perhaps has pointed out, that 10 percent is not net cost, because of the rulings of the Internal Revenue Service about tax deductibility. So the net cost is less than 10 percent. The reasonable upper limit, as you say, is a philosophical discussion.

(Chairman Buesking) Don, thank you very much. You have been most articulate for us this morning.

(Applause)

THE DUKE PLAN

John Spencer Ferebee, Jr.
Graduate Student and Research Assistant
Duke University

T. C. Beatty
Assistant Director of Financial Aid
Duke University

(Chairman Buesking) I would like to introduce Mr. T. C. Beatty, who is Assistant Director of Financial Aid at Duke, and Mr. John Spencer Ferebee, a Graduate Student and Research Assistant at Duke. They have taken over the direct efforts of the Duke Plan.

(Mr. Ferebee) We would like to thank Mr. Buesking for having us here to talk about the Duke Plan.

In the spring of 1971 the final decision was made to implement a deferred tuition program at Duke University. Four plans were developed, one for Duke undergraduates, and one for students in each of the three professional schools. The undergraduate plan and the plans for the Law and Medical Schools were developed by the Provost's office. The Graduate School of Business Administration's plan was developed by the Business School. The initial funding of $151,000 for the plan consisted of both funds from new grants and funds intended for conventional means of financial aid. The administration decided to experiment and employ the deferred tuition plan.

The decision to offer this form of aid was made quickly and time prevented a large marketing effort towards the student body. Articles appeared in the school newspaper and local papers briefly describing the system and announcing its availability in the fall 1971 semester. The plan was explained within the professional schools of Law, Medicine and Business; and undergraduates applying for financial aid through regular channels were apprised of the plan by the financial aid office. Pamphlets describing each plan were written by the four different schools. This was the total marketing effort directed toward the program.

Duke undertook the deferred tuition program in an experimental vein to enable various funding sources, both public and private, to decide whether or not they felt this type of program would be a viable alternative or addition to conventional forms of financial aid. Duke felt that for this type of financial aid program to be accepted by the various funding agencies, it was necessary for several universities to have the program operative.

Forty-three undergraduates and thirty-two students in the graduate professional schools took advantage of the program, utilizing approximately $75,000 of the available funds. The remaining money can be utilized during the second semester. The funding level for the program will remain at about the same level for the next few years. Hence, we will attempt to maintain the number of students who utilize the plan at its present level.

Since the funds are limited, the Financial Aid Office offers the plan somewhat selectively. Undergraduates must complete a Parents' Confidential Financial Statement and other appropriate financial aid forms. The plan does enable the Financial Aid Office to interpret need more liberally than if the student were applying for conventional forms of financial aid.

The actual mechanics of the four Duke plans differ considerably. For the undergraduates, the repayment is .36 percent of adjusted gross taxable income per $1,000 deferred for thirty years. Repayment starts the first full calendar year following the year in which the participant ceases to be a full time degree candidate at Duke University. No payments are required for any year in which the participant has not reached age twenty-one. When the repayment period has begun, Duke will mail the participant a form for declaration of the previous year's income and for calculating the repayment amount for that year. One-half of that amount is due on or before April 30 and the other half on or before October 31. There is a minimum payment of $36 per $1,000 borrowed.

An undergraduate participant may at any time discharge his entire obligation to Duke by repaying the principal amount borrowed plus 8 percent interest, compounded annually, less whatever he has already repaid. Supplemental payments may be made at any time and will be credited against ordinary payments next due or toward optional total prepayment. If they are applied toward optional total prepayment, interest will be credited at 8 percent annually.

The deferred tuition program for the Law School offers a choice of four repayment periods: five, ten, fifteen or twenty years. As the number of years of repayment increases, the percentage of gross taxable income to be repaid decreases. The repayment rates are .4 percent, .55 percent, .72 percent and 1.5 percent of gross adjusted income per $1,000 borrowed in the case of twenty, fifteen, ten and five year repayment periods, respectively. There is a minimum repayment amount in each case. The loan can be discharged by repaying the principal and accumulated interest at 8 percent less whatever the participant has already repaid. The repayment procedure for the Law School is the same as that for the undergraduates with semi-annual payments due by April 30 and October 31. Currently, there are twenty students in the Law School utilizing the deferred tuition plan.

While the Medical School plan is very similar to the Law School plan, the Graduate School of Business Administration's plan is substantially different. There are twenty-nine different

repayment plans the student may select, ranging from two years to thirty years. The student may discharge his obligation at any time by repaying a fixed amount per $1,000 borrowed. This fixed amount varies depending upon the number of years that payments have been made. The main advantage of the fixed amount prepayment schedule is computational ease. The participant knows exactly what he must pay to discharge his obligation. Payments for each year are due in full on March 1.

Each year Duke will provide each participant with a form for the declaration of his previous year's income and calculation of the amount due. At the same time, Duke will furnish each participant with a statement of amounts deferred and repaid, together with sums treated as interest for federal income tax purposes.

There are five main areas of difference between the Duke and Yale plans. The first is who may participate. At Yale, a participant may be any full time student. At Duke, in the undergraduate colleges, only juniors and seniors may participate in the program. For the moment, Duke wants to be fairly certain the student will be graduated and not be burdened with an obligation on an education he did not complete. Any full time law or medical student may participate and any business student in the second, third or fourth semester may participate.

The second main difference is the amount one may defer. Presently at Yale, the limit is $800 per year. Duke undergraduates and law students may borrow between $500 and $1,000 per year. Duke medical students may borrow up to $2,000 per year. Students in the Graduate School of Business Administration may defer up to the amount of the tuition for each semester. For example, students in the business school may currently defer $950 the first semester and $950 again the second semester for a $1,900 total.

The third main difference is the repayment period. Yale's is thirty-five years, while all the Duke plans are of shorter duration.

The fourth area of difference concerns the buy-out option. At Yale, individual prepayment of the obligation occurs when the student has paid an amount equal to 150 percent of the amount he has deferred plus interest on that 150 percent amount, compounded annually. At Duke, in the undergraduate colleges and in the Law and Medical Schools, the individual may discharge his obligation by repaying the principal and accumulated interest at 8 percent, less whatever the participant has already paid. Duke feels this will encourage early repayment of the loan, hence shortening the cash flow time cycle for each tuition deferral.

The final area of difference in the plans deals with the anticipated internal rate of return - or average interest return from all borrowers. This figure is 5 percent at Duke University, 3 percent below the early exit interest rate. Yale, however, has no fixed anticipated internal rate of return, but instead extablishes

a contract interest rate for each six month period. The contract interest rate for each period will be determined in a manner designed to provide to Yale the approximate equivalent of reimbursement for the costs it incurs in the operation of the plan.

Presently a study is under way at Duke to gather information on student response to the program. The study is concerned with determining the characteristics of students selecting the deferred tuition plans. The study works toward developing a model to differentiate characteristics of students who prefer deferred tuition from those who prefer conventional forms of financial aid and to develop a model to estimate demand for deferred tuition.

Does anybody have any questions on the plan?

(Voice) You have no group concept?

(Mr. Ferebee) That is correct, none whatsoever.

(Voice) Along that same line, then, you have a buy-out option, but is there a maximum obligation that any one person has under this, or does he just keep making payments?

(Mr. Ferebee) He stays in the number of years for which he contracted, thirty years, if that is the plan.

(Voice) So if for some reason he fails to buy-out, he still pays considerable multiples of what he had originally deferred?

(Mr. Ferebee) Yes.

(Chairman Buesking) Would he automatically exit if he reached the 8 percent compound?

(Mr. Ferebee) Yes.

(Voice) Would they tell him when he has reached that?

(Mr. Ferebee) Yes.

(Chairman Buesking) But he is going to calculate that exit himself, very likely.

(Mr. Ferebee) In all plans but the business plan.

(Chairman Buesking) Right.

(Mr. Beatty) We are trying to turn the money over. I think that is the essential thing.

(Mr. Ferebee) That is the key point. We are trying to get them to buy-out.

(Voice) I infer from your discussion of the undergraduate selection process, that you were doing this as a separate procedure from their normal financial aid; or are you doing this as part of your financial aid?

(Mr. Ferebee) No, actually, it is a separate procedure. Last year we happened to get a raise in federal money, so most of our loans were from national defense. And these, essentially, were for people who did not qualify for regular financial aid, and we funded at about 90 percent rather than 100 percent.

(Voice) Is there coverage of death risk, or do you transfer the liability to the estate?

(Mr. Ferebee) If a person dies, his obligation is ended. It is not transferred to his estate. Duke has the option of buying insurance for them. We also have the same spouse rule that Yale has.

(Voice) It is not clear to me. Is this plan to be self-sufficient, or is this a contribution from the university, and if so, what is the magnitude of this contribution over the period of thirty years?

(Mr. Ferebee) The plan, hopefully, over the thirty years will turn out to be self-sufficient. Initially, the funding comes from the university. As far as their financial aid office fund, it is only university funds. We are not going to outside sources at the present time. The $150,000 is money that could have been used for granting aid or other sorts of conventional financial aid.

Now, if this area opens up so that the federal government wants to start subsidizing it or other private foundations, that is essentially what Duke is looking for.

(Voice) You will use your $150,000 this year, if I understand you?

(Mr. Ferebee) That is correct.

(Voice) What are you going to use for funds next year?

(Mr. Ferebee) Another $150,000.

(Chairman Buesking) They are going to commit new capital every year.

(Voice) Will it always be the same amount? You are not going to have the kind of decreasing obligation such as Yale?

(Mr. Beatty) We are not going in it in the same manner as Yale at all.

(Mr. Ferebee) Over five years, our estimated budget is $1,000,000, whereas theirs is $25,000,000.

(Voice) That is a fixed amount, $150,000 each year, or plus the payments? In other words, if $50,000 is paid back, you would have $200,000 next year?

(Mr. Ferebee) I would think so.

(Voice) Where do your fixed costs come in to this $150,000? What do you estimate as the fixed cost?

(Mr. Ferebee) I do not really think I could answer that.

(Mr. Beatty) No, I have no idea. It is nowhere near what Yale's is. We handle it through existing agencies.

(Mr. Ferebee) Each school developed or worked on its own plan. I really don't think they costed it out that well. They do not have a separate office that handles this. We don't have a TPO office within the business school. The student who utilizes the plan works through the business school; the undergraduate works through the Financial Aid Office; the Law School student works through the Law School; the Medical School student works through the Medical School.

(Voice) In other words, it is in the existing operating program?

(Mr. Ferebee) That's right.

(Voice) I think you mentioned forty-three undergraduates, something like that. How many were eligible, really, and how many applied? It seems like a low figure.

(Mr. Beatty) Most of those that applied we gave it to. I would say 80 or 90 percent. And only if they needed it -- they obviously did not if they wanted it for a party weekend or something -- but if they showed they needed it at all, we gave it to them. So we did not do the propagandizing, I guess you would say, that Yale did.

(Mr. Ferebee) This was very limited and this is one of the reasons that it actually worked out, that we got over half the funds expended the first semester, which is what we were looking for. I believe the University has some extra funds that they may be able to put into the program if the demand is greater.

(Voice) From what you said, you establish income intervals for eligibility. Or how do you go about establishing eligibility?

(Mr. Beatty) Actually, they did have to fill out a confidential statement, and they did have to show income.

(Mr. Ferebee) What I said was that need can be interpreted more liberally in this case.

(Voice) Could you give me a median income figure?

(Mr. Beatty) Most of these are higher income people. The family income is, you know, $15,000 to $30,000. We have the assets to handle the lower income student.

(Mr. Ferebee) And in the professional schools, there are no questions asked. It is only in the undergraduate school they have to fill out these parent confidential statements.

(Voice) How do you design the various plans that are going to be put into effect? Does each school do its own?

(Mr. Beatty) No, the basic plan was designed and it was then, taken to the various professional schools.

(Voice) Each developed its own forms?

(Mr. Beatty) No. There is one form from the Loan Office that handles contract agreements and so forth.

ALTERNATIVE APPROACHES TO TPO

D. Bruce Johnstone
Director of Income Contingent Group
Ford Foundation

Robert J. Brandewie
Special Assistant, TPO
Yale University

Dr. Brent Spears
PRIME
Philadelphia, Pennsylvania

David K. Storrs
Associate Director for Research, TPO
Yale University

(Chairman Buesking) Thank you very much.

I would like to have Dave Storrs introduce his panel and we will start our discussion about student attitudes and the information we have discussed thus far on the subject. Dave?

(Mr. Storrs) We are going to go into what student trends have shown so far, through questionnaries and interviews, on what they would do in a situation with income contingent loans, what they actually have done at Yale and then some comments about the PRIME program in Philadelphia.

We are going to hear from Bruce Johnstone, who is Director of the Ford Foundation's Income Contingent Group, their PAYE Taskforce, on my left. On my right, Brent Spears, who you heard yesterday, is a member of PRIME in Philadelphia and Bob Brandewie, who is a graduate student in Administrative Science and working on student attitudes at Yale.

Now, I will just start off with some very quick indications of what we have actually found so far.

(Exhibit 1)

As of now, you can see a very sharp trend by class. Starting with freshmen, about a third of the class participated, with a much higher participation by men than women; 50 percent higher participation by men than women in each class. Starting from about a third of the freshman class we go to about a sixth of the senior class, 23 percent of Yale College, overall.

Exhibit 1

Participation Analysis (as of 11/8/71)

YALE COLLEGE:	Men	% of Men	Women	% of Women	Total	% of Class
Freshmen	351	35%	65	24%	416	32%
Sophomores	224	23%	26	12%	250	21%
Juniors	189	22%	26	13%	215	20%
Seniors	162	17%	14	10%	176	16%
TOTAL	926	24%	131	16%	1057	23%
Total Dollars	$743,700 (82% in $800 maximum contracts)					

PROFESSIONAL SCHOOLS:

Law	85
Medicine	33
Art	32
Divinity	29
Architecture	23
Music	20
Other	22
TOTAL	244
Total Dollars	$138,425 (80% in $650 maximum contract)
Men	199
Women	45

GRADUATE SCHOOL:

TOTAL	81
Total Dollars	$96,250
Men	56
Women	25

TOTAL FOR YALE UNIVERSITY:

Men	Women	Total	Total Dollars
1181	201	1382	$978,375

Looking at the Professional Schools, by far the largest groups are the Law School and the Medical School, which you might imagine to be the higher earning groups. From there we go to essentially a very large scattering through the rest of the Professional Schools.

(Voice) Excuse me, are you going to be publishing these as part of the minutes?

(Mr. Storrs) I am sorry. Every word of this seminar is going to be published. You will all get a copy of the complete transcript. It might not be as necessary to take notes as some people seem to be doing. You will get every photograph and every exhibit with your transcript. I apologize for not mentioning that before.

We have got somewhere in the area of 250 in the Professional Schools. In the Graduate School, we have got just about 80, a much smaller group. But as Dean Taylor indicated to you, it was not quite as available to them. So in the total University at the moment, we have just about 1,400 students, about $1,000,000 deferred as of today.

(Exhibit 2)

Now, as I showed yesterday, just over time, just by fact of graduation and new freshmen coming each year with their higher participation we very quickly arrive at about one-third of the undergraduates. The dollar amounts rise very rapidly. You can make some assumptions about how the graduate and professional participation amounts rise, also, but these here are very conservative assumptions.

(Exhibit 3)

With more realistic assumptions, one-half of the undergraduates will be participating. This would square pretty well with the fact that about 45 percent of our students are on aid and another 10 percent requested aid but were denied it -- a total of 55 percent. There might be a few more in there who were taking it either because they did not apply, but really would like to get aid, or else they would like to take a little bit of the cost off their parents' back. In summary, we are up somewhere over 50 percent participation, probably in the very quick future.

Now, I would like to turn the meeting over to Bruce to get his ideas as to possible participation levels and improvements, especially on a national basis.

Exhibit 2

Participation Projections

PERCENTAGE PARTICIPATION BY CLASS	1971-72	1972-73	1973-74	1974-75
Freshmen	32%	32%	32%	32%
Sophomore	21%	32%	32%	32%
Junior	20%	21%	32%	32%
Senior	16%	20%	21%	32%
UNDERGRADUATE PARTICIPATION				
Percent	23%	27%	29%	32%
Total	1,057	1,243	1,373	1,495
GRADUATE AND PROFESSIONAL PARTICIPATION	325	440	491	534
TOTAL PARTICIPATION	1,382	1,683	1,864	2,029

Exhibit 3

Participation Projections

PERCENTAGE PARTICIPATION BY CLASS	1971-72	1972-73	1973-74	1974-75
Freshmen	38%	42%	46%	51%
Sophomore	26%	42%	46%	51%
Junior	22%	29%	46%	51%
Senior	18%	25%	32%	51%
UNDERGRADUATE PARTICIPATION				
Percent	26%	35%	43%	51%
Total	1,238	1,633	1,994	2,383
GRADUATE AND PROFESSIONAL PARTICIPATION	361	419	465	510
TOTAL PARTICIPATION	1,599	2,052	2,459	2,893

(Mr. Johnstone) Thank you, Dave; I appreciate the chance to be here. I want to share with you some of the results of our recent survey of student attitudes toward income contingent loans. Then I would like to describe some alternative plans which we have been pondering in the PAYE group: plans which I might best describe as "hybrid" income contingent-fixed schedule loan plans.

In planning a national survey of student attitudes toward the income contingent concept, we sought answers to basically three sets of questions: First, what are the borrowing experiences of students? How many students are borrowing? How much do they borrow in a given year? And how much debt would they be likely to accumulate over the period of their education?

The second set of questions concerned student preferences among the literally infinite number of variations on income contingent theme. As I think you all know, a Yale Plan could just as easily have been put together featuring a twenty-five or even twenty-year maximum repayment period; or repayment rates of .5, .8, 1 or even 1.5 percent of income per $1,000 borrowed. The Plan could have been designed to subsidize, from higher earning borrowers, 40%, 30%, or only 10% of the expected low earning borrowers. In other words, a fully income contingent loan plan can vary enormously in repayment rates, maximum terms, and the resulting degree of income redistribution among borrowers. We sought, then, to determine what types of income contingent loan plans are most favored by what kinds of students.

Third, we sought some indication of the probable number of students who would take an income contingent loan of some form, of those who would prefer an alternative, conventional loan plan; and which students are simply not likely to borrow at all.

Throughout all of our questions, of course, we were concerned with the degree to which the preferences of different loan forms would be predictable according to current family income, race, sex, expected future income, or type of institution.

Our sample, I might add, included over 900 students -- roughly 60% graduate -- at ten institutions across the country, including public and private, large and small schools, and two predominantly black institutions. These schools were Berkeley, Purdue, University of Washington, Wisconsin, Brandeis, St. Louis University, Emory, MIT, Howard, and Clark. While this did not purport to be a random sample of institutions or students, we felt it was quite representative of the types of schools that could be most interested in some type of income contingent loan plan.

I will be very brief on our findings, in part because there is nothing more excruciatingly boring than being read a list of numbers, and in part because we will soon be publishing a full report of this survey research.

The students sampled were heavy borrowers: Over half had borrowed, including about 43% of the white undergraduate students, and about 60% of the black students and white graduate students. It is possibly significant to underscore this point. In spite of the fact that many critics of new loan plans have complained that they will have to be taken preponderantly by low income and minority students, this is already true of any form of credit. If one views income contingency as a potentially more manageable form of debt, it would seem that it can do little but benefit those students who are currently the heaviest borrowers.

We gave the students a choice of three different income contingent loan plans. One I will call the "high subsidy" plan: It was a twenty-year plan under which a significant portion of borrowers could be expected to repay their loans at less than cost. It had, of course, a fairly stiff exit or "buy-out" provision in order to get enough surpluses from the high earners to cover losses from the low earners. Another I would call the "low subsidy" option. That was a thirty-year maximum term plan with reasonably high repayment rates. Most of the participants in that plan could be expected to repay in full well before the maximum term. It provided minimal low income protection, but was certainly the cheapest plan for any expecting reasonably high earnings. Third, we provided a moderately high subsidy plan featuring low annual payments and long expected repayment periods.

For the total student population, the low subsidy plan was by far the most popular, chosen by about 56%, with the high subsidy plan next at 38%, and with only 6% choosing the moderately high subsidy plan with the low annual payments and long repayment periods. Of those students who expressed some actual interest in one or another plan, the relative preference for the low subsidy plan was less pronounced, although it was still favored by almost half the respondents. Fortunately, surveys sometimes reveal what one expects. This one did, as expected, show that high income expectors tended to prefer the low subsidy plan -- the one with the lowest possible cost to high earners -- and students expecting low earnings preferred the high subsidy plan.

Then we added ten and twenty-year conventional loans to the choices. Now, 37% of those continuing students who expected to borrow in the future, preferred their favorite income contingent loan over either of the conventional options. When allowed to choose between an income contingent loan, the ten and twenty-year conventional loans,and "neither," about a quarter of all continuing students expecting to borrow preferred the income contingent loan. It was interesting, I think, that the preference between an income contingent and conventional loan was not related to future income expectations. In part, of course, this is because we provided a range of income contingent loan options suited to the tastes of various income expectors. However, it might also suggest that the much feared "adverse selection" might be less of a threat with favorable income contingent loan choices provided.

We did find, however, that preference was clearly related to both race and sex. While over one-half of the white males expressed a relative preference for the income contingent option, only 37% of the black females and just over one-quarter of the black males and white females prefer the income contingent option. What we seem to have, and I may attempt to return to this point later on, is a case of a loan plan designed to reduce or minimize risk being perceived, actually, as a far more uncertain and therefore far riskier borrowing proposition. I think it is clear that blacks still have far more uncertain -- and quite probably somewhat lower - income prospects than whites. At the same time, the loan form which was designed to hedge against the risk of low incomes was actually seen as the riskier of the options and thus avoided by the blacks. I don't think it is an insurmountable problem, but it certainly must be recognized.

We also tried to figure out why students responded as they did: what features of the various options either turned them on or turned them off. In this connection, we were somewhat dismayed, although by no means surprised, to discover that students reacted very heavily to the total dollar repayment figure. This figure, of course, is an utterly irrelevant and even misleading figure when viewed apart from the repayment period. In other words, a thirty-year loan can be a bargain in every sense of the word and still require repayment of two or three times original principal, while a shorter term loan repaid with fewer total dollars can, in fact, represent a far higher cost loan to the borrower. Students did, however, weigh the total repayment dollar figure very heavily in their minds, and accordingly attached little importance to low annual payments, which, of necessity, meant longer terms and larger total dollar repayments. I frankly don't know how seriously to take this phenomenon.

There are lots of pitfalls in a survey, and even if it could be established that students overwhelmingly preferred short terms and high annual payments in the borrowing years it might very well be that they would thoroughly rue that decision later on in their repayment years. It is apparent, however, that we must keep this attitude in mind. While most of us who have investigated income contingent loans have stressed the long terms and low annual payments as one of the key virtues of such plans, it is quite possible that students are inordinately uninterested in low annual burdens, and would simply prefer to terminate their obligations as soon as reasonably possible. Of course, even if the student attitudes are not compelling, the lender may stand to gain from higher repayment rates, larger annual payments, and shorter terms, simply from the more favorable cash flow of the loan plan.

(Mr. Storrs) Did you find any differences in a given college between the blacks and the whites?

(Mr. Johnstone) No. Most of our black respondent population came from Clark and Howard. Thus, we were quite possibly getting as many institutional effects as racial effects. We did not, however, have enough blacks in the rest of our sample to do any tests of race effects at particular colleges.

Let me turn to another point, if I can, Dave, and discuss for a moment some of the alternative plans which we have been considering. One of the most controversial aspects of the Yale Plan, of course, and indeed of virtually all the income contingent loan plans which have been proposed over the last decade or so, has been the redistribution of income from high to low earners -- the need to collect surplus payments from high earners to recover losses on low earners. I would hope that we can begin to have more thought turned to the possibility of what I would call "externally subsidized" plans. By this I mean a plan which still provides a degree of low income protection, but which recovers losses from low earners from some source other than high earning fellow borrowers -- presumably from whatever source currently subsidizes students such as the state, the federal government, or the institution itself.

In part, this is because I have never been entirely comfortable with having to generate low income subsidies from the particular class of students who are well off today, but who were unfortunate enough perhaps twenty years ago to have had to borrow.

On a more positive note, however, I feel that the subsidization of a student on the basis of low future earnings is certainly as valid and perhaps considerably more valid than most bases upon which we now subsidize students. On an institutional basis, this could mean directing some of the student aid budget into subsidization of students on the basis of their own future, rather than according simply to their current family, incomes. On a governmental level, of course, this could mean the direction of more state subsidies into low income forgiveness rather than the implicit across-the-board subsidies contingent simply upon attendance at a public institution.

Another idea we have been considering is the graduation of fixed-schedule payments within otherwise conventional loan plans. In other words, one could approximate income contingency for the great majority of borrowers simply by amortizing payments on a schedule which is graduated upwards over time as opposed to a schedule featuring equal installments, or even, in the case of many National Defense Student Loans, decreasing annual installments.

Attached to such a plan could very well be a repayment ceiling, stating some percent of income above which the fixed-schedule payment should not rise. Any payment due in excess of this repayment ceiling would be either deferred or forgiven. In such a way, only the low earners would actually pay on a purely income contingent basis and have to report incomes. All the rest of the

borrowers would simply pay the fixed-schedule amount, but on a schedule which, by virtue of its graduation, would still be approximately income contingent for all borrowers.

One could call such a loan a fixed schedule-graduated payment loan with an income contingent protection clause. Or, one could look first at the protection clause, and call such a plan an income contingent loan plan with a fixed schedule of annual upper limits, instead of the upper limits on accumulated repayments which are featured in the Yale Plan. In either event, it is obviously a hybrid plan, with only the lowest earners paying on a purely income contingent basis.

Such a plan, of course, could still be either internally or externally subsidized. For an externally subsidized plan, the fixed schedule payment would be set to amortize the loan at, say, 7 percent. Any low earner receiving a forgiveness by virtue of his low income would, in effect, be subsidized by some source other than his fellow borrowers. If, however, one still wanted to stick with a mutualized, internally subsidized plan, one would simply have to set a fixed schedule which would amortize the loan at a rate of return in excess of the break-even rate needed by the loan plan. In other words, if the plan needed to recover 7 percent over all borrowers in order to break even, the fixed, graduated upper limits could be set to return, say, 9 or 10 percent rate of return. Such a plan, in effect, could be made identical to the Yale Plan, with the fixed annual upper limits achieving precisely the same surpluses from high earners as your 150 percent of principal buy-out rule now achieves. The only difference would be that borrowers would pay at the upper-limit each year for the entire repayment period, and would not have to report incomes.

There are, of course, other variations, but these should suffice to illustrate my major point: that there is a great deal one can do with the income contingent concept, and some of the more promising plans may be to discover variations which combine the protection and convenience of income contingency with some of the simplicity of the conventional schedule loans.

Dave, I will stop now and take questions.

(Voice) Bruce, I am Samuel Hanna from Boston University and this is Professor Wu. The very plan you just outlined is one which we submitted to our President about a month ago and he has adopted it and will make announcements sometime in December about that plan. So I thought you would be interested in knowing that BU is going in that direction.

(Mr. Johnstone) I am very interested. I hope you will send me some material on it.

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(Mr. Hanna) In fact, our President has made an appointment with your office to discuss this.

(Chairman Buesking) Is it about the subsidy?

(Mr. Hanna) So, seriously speaking, he probably has contacted your office about this already. So I think within a month you will hear Boston University make an announcement in that direction.

(Mr. Johnstone) Good. I am eager to hear from them.

(Mr. Storrs) It is pretty clear that there are a lot of ways to do this kind of thing. I would like to defer questions for a few minutes, if you do have some points about Bruce's talk.

I would like to move on in student attitudes. We will turn to Bob Brandewie, who has surveyed the Yale population and has come up with some findings, not about the reaction of the borrowers to a hypothetical plan, but, rather, "How do you feel about this plan as it sits in front of you?" And what are the statistics of this group of people? Bob?

(Mr. Brandewie) Let me begin by stressing the point that what we were looking for and what this research involved had a basically different thrust from some of the research that has been done previously on income contingent loans. We were not interested, for example, in predicting participation. What we were interested in doing was more or less scaling people in the Yale population along a continuum that went from very unfavorable to a very favorable attitude toward TPO. We were interested in finding their attitudes toward debt, their perception of income contingency, and especially their reaction to TPO here at Yale. We wanted a scale which would help us to determine what important decision components, both psychological and objective, influence the decision to take, or to reject, TPO. So we did not answer some of the questions like: What kind of terms to they like? How many years? although we do have that in a more general way.

To achieve this objective, we developed a questionnaire that had six attitude sub-scales. We had 56 attitude questions and we sent the questionnaire to 400 randomly-selected Yale undergraduates.

We got a return of about 45 percent, 178 returns. This respondent group, I think, presented a very adequate picture of the Yale undergraduate community. Sex and financial aid, for example, were strictly representative of the Yale population, although freshmen and participants in the Plan were slightly over-represented. At any rate, the questionnaire proved to be a statistically valid and reliable representation of student attitudes here at Yale.

What did we find? Well, on the most general level, we found that people endorse the idea of income contingency as much as to say they would support that plan on a very general level. People thought the idea of repaying loans according to your income was a good idea. Here at Yale we also found substantial endorsement of the idea of subsidization. Students felt it was also a good idea for high earners to pay more than low earners.

Now, this is on the most general level. This is not to say that there were not specific objections to how the Plan was implemented at Yale, because there were, and I will go into that more a little later.

Also on a general level, we found that there were reliable and statistically significant differences between participants and non-participants. We found that participants had a significantly more favorable attitude to the Plan than non-participants.

What are these differences? In what areas were the differences? As I said, we had a questionnaire with six different sub-scales on it. Five of these were concerned specifically with the students' attitudes toward the Plan, and the sixth one was a factual sub-scale which measured what they knew factually about the Plan. Two of the sub-scales were of no use in discriminating between participants and non-participants. Three of them were very useful, and I would like to go a little more in depth into what these three sub-scales are, and what they mean.

The first sub-scale, and I think the most important one, is something that we termed "risk," which is kind of a misnomer. We postulated that there is an individual differences variable - call it something like psychological attitude toward debt - that mediates the choice of a loan vehicle. TPO is a different type of loan vehicle than a conventional loan, and we hypothesized this attitude variable plays a part in the decision that is made about what loan vehicle to take. The sub-scale that we called "risk" measured things like attitude toward long-term debt. For example, does the student feel anxious about being in debt? How does he feel about ambiguity and uncertainty? These are the types of things that we were trying to get at with the sub-scale.

We found, in fact, that there were significant differences between participants and non-participants. There are a lot of uncertainties and ambiguities involved in TPO, leaving aside for the moment whether there are more or less than a conventional loan. Let me go into those for a minute.

First of all, the decision to take TPO means committing oneself to be in debt for a substantial period of time, up to thirty-five years. In addition, the prepayment penalty (the buy-out) is relatively stiff. So the student who feels anxious about being in debt might think twice before committing himself to TPO.

In addition, there are a number of ambiguities involved in participation in an income contingent loan program. There is no way to tell how long you will actually be in debt, or how much you will actually wind up paying. People who feel anxiety about being in debt might shy away from these added ambiguities. What we found, then, is that there is a clear conflict, for some, between their psychological set, and the provisions of an income contingent loan.

However, it is also apparent that for some there was little or no conflict between their attitudes and TPO. In fact, there are attractive certainties about the Plan. First, the borrower is assured that his obligation will never exceed a fixed percentage of his income. Second, that he will not have to pay large amounts for debt repayment when his income is lowest.

Now, the second sub-scale that we found was important was the perception of the cost of TPO. Again, non-participants saw the Plan as significantly more expensive than participants did. There is some difficulty in sorting out the reasons for this. In fact, TPO is more expensive if you are a high earner. If you are earning a lot of money, TPO is likely to be more expensive than a conventional loan. So you might postulate that the high income expectors were the people who saw TPO as most costly. This, in fact, was not borne out by the data. We found there were some differences in income data. We found there were some differences in income expectation, but as a generality, I think 68 percent of our sample people said that they expected to earn lower than the average income. Only 32 percent said that they expected to earn higher than the average income.

(Mr. Johnstone) Is that the "greening of America," Bob?

(Mr. Brandewie) I don't know. At any rate, we found in general that the people who expected to earn higher than average incomes were also the people who had no intention of borrowing, and that low income expectations were not related to choice of a loan vehicle. People who liked and disliked TPO, but were in the borrowing population, had the same mean income expectation. In other words, there were just as many low income expectors in the non-TPO group as in the TPO group. The much feared "adverse selection" problem of getting only low income expectors into the Plan, did not occur. We found equal income expectations in both TPO and non-TPO groups, other things held equal.

People, as they see their income expectations now, do not discriminate between income contingent and conventional loans. How, then, can you explain this difference in the perception of cost? One possible explanation that we have been exploring is a misunderstanding of the effects of long-term debt. I think Bruce was talking about this a little. People might key on the total dollar repayment rather than interest rate or present value payments. And some of the things we found support this hypothesis.

First of all, there was a significant correlation between how the people perceived the Plan, and how much they knew about the Plan, as measured by the factual sub-scale. That is, those who saw the Plan as less expensive, also knew the most about the Plan. So we think that this might go to a possible explanation of why this difference occurred. Again, just to summarize that point, non-participants saw the Plan as significantly more expensive.

The third sub-scale that we found discriminated between participants and non-participants, was one that we call "family," which tried to measure the impact of the parents' attitude on the students' choice of a loan vehicle. We found, and I think this is a little surprising, that this impact was very substantial. A parents' unfavorable attitude toward TPO went a long way to discourage a student from taking TPO.

You might look at it this way: there are two types of borrowers. The first type has to borrow in order to meet the tuition payment. There is no way that his family, for example, could throw in the money. So his parents have a say only over the type of loan vehicle that he takes, not the fact that he will borrow or not borrow.

The second type has a choice as to whether he will borrow or not borrow, and I think the parental impact was especially pronounced in the second group. The guy who went to his family and said -- perhaps he said, "I would like to borrow to take some of the burden off of you, and I would like to take TPO." I think a parent's unfavorable attitude at that point was especially persuasive. The parents might say, "No, I would rather give you the money than have you borrow on TPO." So, again, the student who took TPO, their family, as measured by this sub-scale, had a significantly better attitude toward TPO than those who did not borrow or chose not to borrow.

Those are the kinds of attitudinal reasons for participation or non-participation. But there are some pretty objective and real world reasons for participation. It is not earth-shattering to say that no one borrowed who did not need the money by some definition. In other words, those who borrowed the money needed it. But one question we are concerned with answering is, is the obverse of that question true also. Did everyone who needed the money borrow under TPO? In other words, was there forced participation in the Plan? There was a tuition increase this year; financial aid, however, stayed at last year's base. So we are concerned about whether people were pressured into taking TPO. We have collected some data and we are in the process of collecting some more data to answer this question.

First of all, again, the participants in TPO, according to our questionnaire, had a significantly more favorable attitude, regardless of their need status. In other words, there was a certain base line of favorability that was needed before a student would participate in TPO. If he did not like it, no matter what

his need status, he probably did not participate. This is one piece of data that goes to answering the coercion question.

Another way to look at this question is to look at participation levels in each class. Dave, could you discuss this analysis?

(Mr. Storrs) What we are doing on this is taking the number of people in the freshman class who participated in tuition postponement -- about 33 percent. We are taking the percentage of the freshman class which is on aid - about 44 percent. If we assume that the only people who borrowed are people who are on aid, well, then we have got 33 people out of the 44 on aid who borrowed through us. The other 11 went somewhere else to do their borrowing, or else they did not need it, but for some reason they were not forced into borrowing through us. So if you assume only freshmen on aid took TPO, then about 75 percent of freshmen aid recipients participated. So at least some number of people were not forced or coerced into tuition postponement this year. Let's say this term, in fact. We don't know what will happen in the future.

It is reasonable to assume however, that some TPO participants were not on aid. These would include students taking some of the burden off their parents and students who requested but were denied aid. If 10 percent of this group - freshmen not on aid - participated, then this means that about 62 percent of freshmen on aid participated, 38 percent found alternative financing.

So freshmen on aid participated to the tune of between 62 and 75 percent, depending on your assumptions of non-aid participation. Going through the same analysis shows that participation by seniors on aid was much lower - between 24 and 36 percent.

So, somewhere between 40 and 50 percent of the students at Yale on aid took tuition postponement to cover the $500 increase. Is that clear?

(Chairman Buesking) You are in essence saying they found other sources? They were on aid and they found other sources to finance that increase in tuition?

(Mr. Storrs) That is right.

(Voice) Do we have any idea how many people took other kinds of loans?

(Mr. Brandewie) No, that is something we are in the process of finding out. We are in the process of finding out objectively how many people on financial aid and how many people not on financial aid took TPO or other kinds of loans. But it is something we have not had a chance to look into yet.

One other thing we did. We were interested in finding out what were the reasons that people did not participate. In other words, if they had need, or if they did not have need, why didn't they participate in TPO? The major reason, again going back to that earth-shattering statement, was that they didn't need the money. This was the most important reason they did not borrow under TPO. But if you look at the group now who did need the money, what were their reasons for preferring alternative sources to TPO? Again, we come back to the same three sub-scale reasons. This was in a different part of the questionnaire with a different type of presentation, but it goes back again and supports the data we found on the attitude part of the questionnaire. Risk, again, not liking the long-term debt aspect, feeling anxious about the uncertainties of TPO was a very important reason for non-participation.

Family, again, was another important reason. The question read something like: "My parents discouraged me from taking TPO." This proves to be an important reason for non-participation in the Plan.

Finally, the least important of these reasons is the perception of the cost. If you thought you were going to earn too much to make it worthwhile to take the Plan, you did not take the Plan.

(Mr. Storrs) One thing I might add is that you can also see that there is a large difference between the aid and non-aid groups. There is a clear socio-economic difference between them. We saw dramatic differences in income expectation, presumably conditioned on their own socio-economic class. You might expect the group not on aid quite naturally to be more confident about their future, to not see so many problems with the Plan. And you might see the group on aid, probably from a lower socio-economic background, as less confident, seeing TPO as increasing their uncertainty about the future. "I don't know what I will pay"; "I don't know what the interest rate will be"; "what happens if I make a fortune?" You might see this group that is on aid being more affected by those uncertainties than by the certainty of the percentage of income being known. That was another of the clear conclusions that came out.

(Voice) Question. Can you look at your applicant pool or the number of students that you admitted, and canvass their

attitudes toward TPO, and to what extent did your admissions office believe that it may have affected your yield this year in that your competition was not offering a similar kind of opportunity?

(Mr. Storrs) Well, it wasn't announced, really, until after applications had already been received. It had been announced as essentially something that was coming, but details had not been spelled out very well. We don't think it had much effect. We think the bigger effect was due to increasing the application fee from ten to twenty dollars. Ralph, would you agree with that?

(Mr. Burr) I think that is accurate enough.

(Voice) I am concerned about yield. As I understand it this year, you had to admit more students in order to get your class and at the time you offered them financial aid, there was a new input here that was not being offered by your competitive institutions.

(Mr. Storrs) I see your point. It might have played a minor part, but not much more than that. Ralph Burr is Director of University Admissions and can comment on that better than I.

(Mr. Burr) I think the statistic that I find meaningful is the fact that the financial aid candidates who presumably needed the help of TPO in order to meet their needs, their yield was as strong or stronger than the preceding year. It was in the non-aids admitted group where the yeild went down.

Now, at least on the group that needed the help of TPO, our yield held up.

(Voice) But you offered this also, you offered this Plan also to the non-scholarship students?

(Mr. Burr) It was offered to non-scholarship students as well, right. I think the jump in tuition, the timing of the $500 increase coming in February may have had a significant effect.

(Chairman Buesking) There were about three factors that are hard to isolate. The first was the application fee was doubled from ten to twenty dollars. The second is that we delayed a very long time, our announcement on the tuition increases which

was made, I believe, on the 6th of February, which was much later than our competition for this pool. And the Plan was known to be coming along, but its final form was not known to the applicants until after our yield had been achieved. It was May or June before there was any definitive literature on the Plan. This coming year we may find something very significant, but for last year we only see a minor impact because most of the events had already taken place about admissions and yield before TPO became a concrete reality.

(Mr. Storrs) We will be looking at the effect on yield in the future, though. You might suspect that the school which gave a grant for the increase would probably be preferred to the school which gave a loan, called TPO, for the increase.

(Mr. Brandewie) Just by way of review and maybe to stimulate some questions, I would just like to go over the general conclusions.

First, we found general endorsement of income contingent borrowing on a general level. Second, and this was a little surprising, we found no attitudinal differences between men and women. Three, we found little evidence of forced participation by our financial aid recipients, at least for this year. Fourth, we found strong influence of parental attitude. Fifth, generally low income expectation, although it was not correlated with participation in the Plan. Those who knew most about TPO liked it best. Those who knew most about the Plan had the most favorable attitude toward the Plan. Students on aid are generally concerned about large loan repayment immediately after graduation. And finally, some non-participants mentioned that they would like a shorter term or mentioned the long term as the reason for their non-participation.

Dave?

(Mr. Storrs) What we tried to do is we looked at 400 students and we got a set of perceptions about a plan that is in existence today. As Bruce pointed out, there might be a big difference between a student borrowing $1,000 and a student who is going to borrow a lot of money. I think it is the latter group that we really designed the Plan for. We did get some individual variances. Some wanted a shorter term, less redistribution. Some wanted the federal government to pay for the whole bill. For the broad scope of the entire group, we found general endorsement with significant deviations from that endorsement.

(Voice) I would like to get a little closer to what you mean by "general endorsement". Because you coupled your general endorse-

ment with Mr. Johnstone's survey at Ford, and I recall him stating that 30 to 40 percent of those who have to borrow would take some sort of tuition postponement option.

Now, is that what you consider general endorsement, and is that the order of magnitude that you see?

(Mr. Brandewie) I was not referring to that particular piece of data. I think, Bruce, wasn't there something like two-thirds who endorsed the idea on a very general level?

(Mr. Johnstone) Yes, yes. Found it is a nice idea in a very broad sense of endorsing. I would go back and just say that my strong, in part, hunch, inference, from the questionnaire is that if you had sort of the best possible conventional loan that you could put together, for reasonably low amounts of debt, most students right now would prefer a conventional loan. But to me, if you had 40 percent in TPO, I call it significant.

(Mr. William Curran) Bruce, I wish you had been here for Dean Taylor's presentation this morning in which he showed the actual acceptance of the Yale Graduate School for a 6 percent conventional loan and TPO under a fairly controlled situation. Very surprisingly, there was a much larger participation in TPO.

(Mr. Johnstone) That would be contrary to our questionnaire, which is a little interesting.

(Mr. Storrs) I would like to back up again just to refresh you, that we have got a majority of the Graduate students saying, "I prefer an income contingent loan to the 6 percent conventional loan". This is the first year that it has ever been offered. We might consider that, I think, a significant endorsement by a lot of people. Bob used a scoring system which ranked people with respect to their favorable or unfavorable attitude toward TPO. We found a very sharp difference in attitude between participants and non-participants, whether on aid or not on aid. I think these are the differences that we are talking about.

Brent Spears is going to talk about the PRIME program in Philadelphia, some of the conclusions that they have come to, and the potential market in the medical education world.

One number I might throw out that maybe Brent can comment on is that in Stanford's study of income contingent lending, George Day found the average Stanford Medical School graduate getting out with a $9,400 debt. So here we are certainly talking about some very large numbers.

(Dr. Spears) Thank you, David. I feel very fortunate to be here today to talk about the PRIME concept. I am going to try to raise a little hell with income contingent programs, so I would like to say at the outset how much I appreciate the opportunity that we all get together here to talk about these kinds of problems.

Joe Hartmeyer, who just had to leave, took us all down to Mory's last evening for dinner. Speaking as a Harvard man who sang in the Krokodiloes, I found myself last night sitting next to the Whiffenpoofs singing Yale fight songs and I really must admit I never heard or participated in better singing in my life. It was really great fun.

I think Yale is to be commended for making a very brave experiment in the area of student loans. At the same time, I have sensed in this audience, an undercurrent, sometimes not even articulated, about what is going on here in the field of student aid. Are we really going in the right direction? I don't know whether I can lend any insight to answering that question except to tell you about PRIME,which I will do.

I have been asked to speak specifically about student attitudes. I would like to polarize the audience by saying that I don't think student attitudes are very important. You will say, "What are you saying? Is it possible that somebody could say something like that and be responsible?" The reason I say that I don't think student attitudes are of much import is in order to make the distinction that President Brewster has made between accountability and participation. I think we, certainly, as administrators, must be accountable to the student for the kinds of programs that are made available. But I do not think that the average college or medical student has any idea or understanding of financial aid or his own lifetime financial picture or anything resembling this. I think it is our responsibility as educational administrators to think through the problem of financial aid, particularly with regard to student loans, to come up with good answers and then to educate our constituency, which in this case is the student, the Federal Government, parents and the rest, to what needs to be done.

We at PRIME have tried to do this. I think the past five years, to my knowledge, in this country in higher education has been notable for the dearth of original ideas on the financing of education, relative to the great need for new thoughts on this subject. I think we have kind of gotten hung up on one answer - Ed. Op. (TPO). I think everybody felt they had to pay obeisance to Ed. Op. before doing anything else. I am not saying that I do not think Ed. Op. is a good idea, but I do think that we need more ideas in order to determine what mix of financial aid packages are ultimately going to give us a solution over the long run.

With this in mind, I think we have got to try and get out of the Ed. Op. mold for a minute and think about other alternatives.

Mr. Johnstone talked earlier in terms of a fixed schedule of repayment with an income contingent plan as insurance. This is, I think, a relatively original idea of Mr. Johnstone's although we have been thinking along these lines also. I think ideas like his are really quite needed. I will comment briefly on what we have done and then I would like to know what is going on in the audience, if that is appropriate to this discussion, to see really where we should be headed.

Basically, what PRIME has done more than anything else so far (you always have to keep in mind the fact that Yale has a program going and we are just talking about one, and I know this is a fundamental difference) is that we took about ten steps backwards and said, "What are the needs here?" The first thing that we said was: "What are the students' needs?" We identified three needs: "Ideal Characteristics of a Student Aid Program", we called them. (We talked with students, but we did not answer the question simply by what students told us.) We found three basic characteristics. One was Expansibility. That was a key phrase for us, "Expansibility". That is to say, a student aid program (if it is a good one) should be able to be self-generating, open-ended in terms of available dollars, and able to broaden to many kinds of students, if it is to be really a worthwhile and important concept.

The second characteristic is what we call "Opportunity". By Opportunity, we meant that a student must be given up to full financial support, if necessary, in an ideal student aid program. If a student needs $4,000 and can get only $3,000, he might as well not have anything. Oversimplified, I know, but in these terms, any good student aid program or combination must provide for Opportunity.

The third concept was "Equitability", and this comes upon the hard question of who should pay for higher education. What proportion should the student pay? In our analysis we attempted to distinguish between <u>access</u> to (medical) education, on the one hand (<u>i.e.</u>, acceptance, promotion, and graduation), and <u>financial obligation</u>, on the other hand. If it could be proven, as we believe we did prove, that medical education was a good (private) investment for the medical student, then Equitability would require that the student undertake an obligation to pay for a greater proportion of the true cost of his medical education.

These three concepts, then, Expansibility-Opportunity-Equitability, may be thought of as characteristics of an ideal student aid program, as seen by the student. From the point of view of the investor, the provider of the funds, on the other hand, there are other essential characteristics of a student aid program.

Wally can comment on this in greater detail later, but the investor must satisfy three basic needs: Safety of Principal, Liquidity or Marketablity, and some kind of Return on Investment.

Having analyzed the basic characteristics of an ideal student aid program, we married these two types of need, the students' needs on the one hand and the investors' needs on the other. We tried to make them fit together. In so doing, we had a major assumption behind us. Our assumption was that medical education is, in fact, a good investment for the student. Therefore, the concept which we were pushing was that the private investment community, knowing that education was such a good investment, could reasonably hope to provide funds for medical education, in exchange for which the student, realizing that his education was a good investment, would pay back to the private investor the cost of his education. This concept of education as investment I am sure is very familiar. It has been developed in many studies in and out of medical education.

In some senses, then, this concept stands against TPO, and I am going to oversimplify here for the purposes of expanding the discussion, because the concept of PRIME puts in a somewhat different light, the nature of who pays for education. PRIME assumes, by implication, that the student will pay for his education in a specific dollar amount. The TPO concept, on the other hand, works on the basis of <u>not</u> knowing what the student's future income will be and asks the student to invest in TPO on the basis of that uncertainty. To oversimplify, PRIME capitalizes (no pun intended) on student confidence; TPO on student pessimism.

In summary, then, we have tried to come up with a concept whereby we say that medical education is a good investment. We involve the private money market. We involve the student. We say, can we work a deal here (as it turns out, a long term, low cost, mortgage-type loan) whereby you, the student, will have your financial worries erased if you will pay for a significant portion of your education in a specific dollar amount from your future income? I don't honestly know whether this is a better answer. Indeed, it is not necessarily true that one model is better than another. Indeed, a hybrid model may ultimately evolve to be the best kind of thing. But this is our contribution.

I don't know, in fact, whether we can sell the PRIME concept to medical students. Banks aren't used to giving mortgages for education, or students to accepting them. We have a twenty-page questionnaire which is about to go out, which has not yet gone out, in which we ask these kinds of questions. It appears as if medical education nowadays is moving more and more in the direction of dependence on the Federal Government. It certainly has done so in the past twenty years. I think a fundamental question that doctors have to ask themselves is whether they are willing to mortage their futures to a governmental or institutional source,

or, are they going to be willing to accept the burden of cost for their education in which their only debt is a personal one to a private lending institution? The choice is no longer between various ways for the medical student to accept responsibility for only a miniscule proportion of the true cost of his education. This is no longer realistic. Rather, the choice will be between greater or lesser degrees of physician autonomy. We may well be working against the tide of history in suggesting that individual physicians or any individual student in higher education is willing to put his career on the line in such a manner. We are postulating that he might want to do so. We don't know.

In conclusion, it does bother me somewhat, and this is only my opinion, to ask a person to make an uncertain commitment as a percentage of income against the rest of his life. It reminds me, to make it a bit ridiculous, of having a Master Charge Card and you could take it and buy houses and refrigerators and the rest of it, and the creditor would say, "Well, we don't give a damn how much you pay back; you just pay back a percentage of your income." So a man could have used $50,000 of credit and pay back $20,000 for it, if he has a low earning job. Or, if he made a lot of money, say $125,000, he would pay back much more than he borrowed.

If a man goes to Yale, he has got something going for the rest of his life. I am surprised that he would wish to pay for his Yale education by a kind of lottery/welfare system.

Is TPO fair then? Is it our responsibility as educational administrators to offer this kind of program to people and say we don't care how much they pay back? Is it up to us to subsidize low earners and, in a sense, remove the incentive from people who want to make money? Are we past that time in America? I don't know.

I know that I seem hypercritical of TPO. I don't mean to sound that way, because I think it is a terribly brave experiment. I think that much has been gained from having people meet together to talk about it. In addition, I think Yale, more than any other school, has taken the bit in its teeth and has committed itself to doing something, which is more than most schools have done. However, I do think it is quite important that we, as administrators, really try to think out our assumptions about why we are going in the direction we are going and whether it is really worthwhile, and moreover, see what other new alternatives we can think of.

Thank you very much.

(Mr. Storrs) We have looked at the very diverse ways of financing loans through income contingent methods. Bruce has brought up two methods that have not received much attention. Brent has brought up another point. We have talked about student attitudes. I don't think any of us pretend that the Yale Plan is engraved in stone as the ultimate version. Maybe the term, or the redistribution, should be changed. There is no reason that the fundamental terms cannot be changed any way a particular school or set of students would like.

We are very close to 12:00. Would we have time, Bill, to take a couple of questions?

(Chairman Buesking) This is a dry lunch instead of a wet lunch today, so we have about an additional fifteen minutes.

One comment I would like to offer, particularly to Bruce's talk. You, in fact, have an increased redistribution model if you award any kind of aid in your school, because you have a variable tuition. In fact, when you have conventional loans and gift scholarships, if you use conventional scholarship money to underwrite future incomes as a subsidy, you just have a different method of redistribution. It is another way of awarding aid which does have some redistribution, and that is something I believe you don't want to lose sight of.

Now, our 50 percent buy-out has a substantial redistribution, so to speak, but it is hard to get away from that in any of these kinds of schemes, even conventional loans and scholarships. They all involve redistribution of some form.

(Mr. Storrs) This brings up a point that was interesting. Last night at the bar it was interesting to see all the discussion of risk and uncertainty that the University was undertaking. Let's suppose, to be pessimistic, that we made loans for $1,000 each, and 5 percent of them went bad. Well, you would get back $950,000 if those were conventional loans. If you made the same thousand loans for a thousand dollars each with TPO, and 5 percent of them went bad, the 950 people who were still in the Plan would end up paying a little bit more, so you would get back your full million dollars. I don't think we want to lose sight of some of the advantages to both sides.

(Voice) Do you have any sense of what influence opening up TPO in the second semester has? Do you have any figures on how many people are waiting, seeing how they get along next year and so forth?

(Mr. Storrs) I put my best guess up on the screen. I think my guess was that we would move from 32 percent in the freshman

class to just about 38 percent. I think we will pick up about 2 percent of the senior class. They are older; they will be closer to graduation and they don't want to take this twenty-five year obligation for only $800. So I only expect them to go up a point or two. I think it would vary by class, but overall, participation will go from something like 23 percent of the College to about 26 percent.

(Voice) Dave, relative to this question of income redistribution and Bruce's comments regarding using student aid funds to make up the difference in terms of subsidy, there is another kind of income redistribution that is going on at the point at which your tuition is paid. There is a redistribution of tuition income across the University, so that the medical student, for example, is paying a much smaller percentage of the cost of becoming a physician than is the humanities undergraduate. So it doesn't bother me too much to see the subsidization out there, because there is a kind of correlation between costs of your program and your lifetime earning potential.

(Mr. Storrs) Right. It might bother some people, though, and my point is just if it does bother you, then change your plan to meet your needs. I agree completely with the point with respect to some of the professional and some of the graduate schools, too. I think we have heard this suggestion from one member of the staff, that we actually call the graduate school the research center, where we hire people to come and work in our research center since we end up paying them probably more than they pay us.

(Voice) May I say I think we are all appreciative of the discussion that Bruce has made and the work that he has done. That is a very stimulating kind of a hybrid. I did not know they were doing it at BU.

I wonder if there is one more element that could be profitably put into this, and that is, sort of taking advantage of the existing possibilities within the money market, specifically to gear into this guaranteed insured loan program? I wonder if in the beginning it would not be possible to grant a regular guaranteed insured loan so that there would be the possibility of getting the subsidy and then, at the time of graduation, perhaps move into a graduated repayment schedule and carry that to the point where it could be converted into something that would be eligible to move into the secondary money market? It seems to me that an outlet at the other end is exceedingly important to all of our capital needs.

(Mr. Johnstone) I think your comment of trying to plug into the Guaranteed Student Loan plan is a very important one. For one reason, of course, there is a substantial subsidy to both borrower and lender from participation in the GSL program. In addition, federally guaranteed notes will be eligible for purchase whenever we do get a federal secondary market, and this would appreciably reduce the very serious capitalization problem of an independent

institutional loan plan. Certainly the concept of a two-paper scheme, whereby some income contingent second contract is appended to a basic, federally guaranteed student loan contract is a very worthwhile approach, and I would hope that it would be vigorously pursued.

(Voice) I represent a woman's college, and of course the big problem with income contingent plans for us is that women just do not earn the income that men do. So one thing that we were thinking of was switching the focus from income to death, because women live so long, they end up with all the money anyway, usually. We were thinking it would be a plan in which a person would take a loan and then we would tax her estate; a sort of pay-as-you-die plan.

A number of the problems with this would be a tax rate, or just a lump sum payoff, but we are calling it our "Rest in Peace Loan".

(Chairman Buesking) That is almost worth lunch.

(Mr. Storrs) We have not come up with a pay-as-you-die plan yet. All we get back is a little bit of insurance.

(Voice) Dave, I had a concern with the chart you showed that showed the discrimination of people who did not take the Plan between risk and cost. I would like to get your response to the suggestion that risk and cost are a piece of the same element and that this in a sense is concerned with upside risk and another class of cost concern. Do you agree?

(Mr. Storrs) You are right. There are a lot of things going on together there. What we are really trying to do is to take what I would call risk, which is the financial problem that comes when you have got $1,000 in payments to make on a loan and you cannot do it. That is what I would call financial risk.

We are including something which I would call uncertainty, which is, "I don't know what my payment is going to be next year." We are including something called certainty, which is, "I know my payment is only going to be this piece of my income." And I am also including in that scale, maybe a little bit of the uncertainty about, "Suppose I pay more than my classmate?", that kind of thing. We tried as much as we could to get the first type problem, the financial one, off into another cost sub-scale. We tried to break them out as tightly as we could, but I think they do overlap quite a bit.

(Voice) It occurs to me that in the longer term, if student loans become an increasingly significant manner of financing higher education, that the major difference from today's loans may, in fact, turn out to be the insurance mutualization of income.

I can imagine that it could come to pass that most people's loans could become quite substantial and they would be quite concerned about protecting themselves against high payment with little income.

My own view is that this could be an important criterion for judging different plans.

The second comment I have is that it strikes me there is a sharp difference between the way the student perceives the advantages or disadvantages of a plan when he takes the loan, and how he may perceive the same characteristics even three or four years later. And that what we may need is some option for him to switch to a plan which is financially equivalent but has a different set of parameters. Initially, it was geared to his attitude and perception, which later he may turn out to change. But he at least then has the option to change.

(Mr. Storrs) The second point I am not so sure is easy to do. We can create a set of plans, as follows (Exhibit 4):

BREAKEVEN COMBINATIONS

	REPAYMENT RATE	BUYOUT AMOUNT	EXPECTED AND (MAXIMUM) TERM	IMPLICATIONS
1.	.4%	150%	25 (35)	Redistributive, Long Term
2.	.66%	150%	15 (20)	Redistributive, Shorter Term
3.	.8%	110%	25 (35)	Less Redistributive, Long Term
4.	1.2%	110%	15 (20)	Less Redistributive, Shorter Term

Those are all identical plans; each one of them breaks even. But I am not sure if we want to let people who are in, say, Plan 1, which is the current plan, now that they start to make $100,000 a year, I am not sure if we want to let them move to Plan 4, where instead of paying a 50 percent premium to buy-out, they only pay a 10 percent premium. This would upset the basic assumptions on participation and subsidies,and the plan would no longer be viable.

Even at the outset, there might be a problem about offering an option on choosing two plans. We could have adverse selection with people moving from one to the other. Now, if each plan ended up with a similar distribution of incomes, we would not care.

(Voice) I think the trick is to design it so that they are strictly financially equivalent. But I still think people's perceptions do change over time and we may limit their use of it, or people may not really need it initially who otherwise would, if they knew that they had a chance to at least rearrange the terms so that they did not have to make an irrevocable commitment. That may bother a lot of people.

(Mr. Storrs) I would say Bruce has done a lot more on this concept of moving from one plan to another plan than Yale has. We have really taken the step of creating a plan and getting it going. I think Bruce has done a lot more analytical work on how you can have transfers from group to group.

(Mr. Johnstone) Well, I will comment very briefly. The fundamental problem, of course, is that you have created the terms that you have stated on the basis of the expected future income profiles of your borrowers. You cannot let high earners out unilaterally, because you have already, statistically, counted on a certain amount of premium from them. Any plan which allowed high earners to shift into a plan where their total contribution to the fund was less than you had counted on, will create losses.

As Dave said, if you had equally redistributive plans, in which all you wanted to get from any given income profile is 10 percent more in present value than the cost of his loan, that is fine; you can allow that.

(Mr. Storrs) You might let someone move from Plan 1 to Plan 2, for instance. Either way, we will get back 50 percent more than his loan cost.

(Mr. Johnstone) That is absolutely correct. The only instance in which we could clearly anticipate adverse selection by virtue of switching from one plan to another is if one of the plans were significantly less redistributive than the other. If low income borrowers have the same probability of receiving subsidy, and if high earning borrowers have the same probability of contributing to a subsidy in two or three different plans, switching from one to the other is o.k. Where the degree of subsidization differs among plans, then the switch raises possibilities of financial difficulties due to high earners switching into the low subsidy plan.

I should also add, however, that an institutional lender can create such exceedingly conservative terms that the chance for actual financial loss becomes almost miniscule. The Yale Plan is certainly a good case in point. Actually, it is, as I am sure you have been told, about a twenty-five year loan plan. To this has been added ten years simply as a financial cushion for Yale. At the same time, the cohort termination feature has been added for downward flexibility in the repayment period such that the borrowers rather than Yale, will be benefited by a repayment performance better than the "worst imaginable." In other words, with enough fat built into the plan, it is possible that a plan could take a certain amount of adverse selection with no real risk to the institution.

(Voice) In your attitude survey, did you find that any students criticized the fact that it is an average wage earner in the Yale TPO Plan that gets hit the heaviest because of the high wage earner buying-out early and the low wage earner going the term? The private colleges are coming under increasing criticism for the fact that since you have an increasing tuition, your student body is becoming polarized between those who can afford to pay and those who get -- I shouldn't say a free ride, but those who get plenty of assistance so that the middle man is being shoved out of the private scene, at least the private college scene.

(Mr. Storrs) Well, that isn't quite accurate about TPO. As income increases, cost increases under the Yale Plan. The person who gets hit the hardest is the person who buys out. Now, that means an above-average income. The person who has an average income, if Yale's interest rate stays at 7 percent, will pay back a 7 percent loan. The person who buys out, let's say, in the twenty-fifth year, who has paid back about a 9 percent loan, he will have paid a higher price, a higher interest rate.

(Voice) What about the guy who pays back in, say, the fifteenth year?

(Mr. Storrs) He will have paid a still higher price, in terms of the interest rate he pays, maybe 11 or 12 percent. So in that sense, the person who gets hit the hardest is the person with the highest income. We felt it was fair to do it this way. We agree that it should not be the person who is just at the average who gets hit the hardest, and that is the reason we do not do it that way. The exit interest rate method of buying out does do it that way.

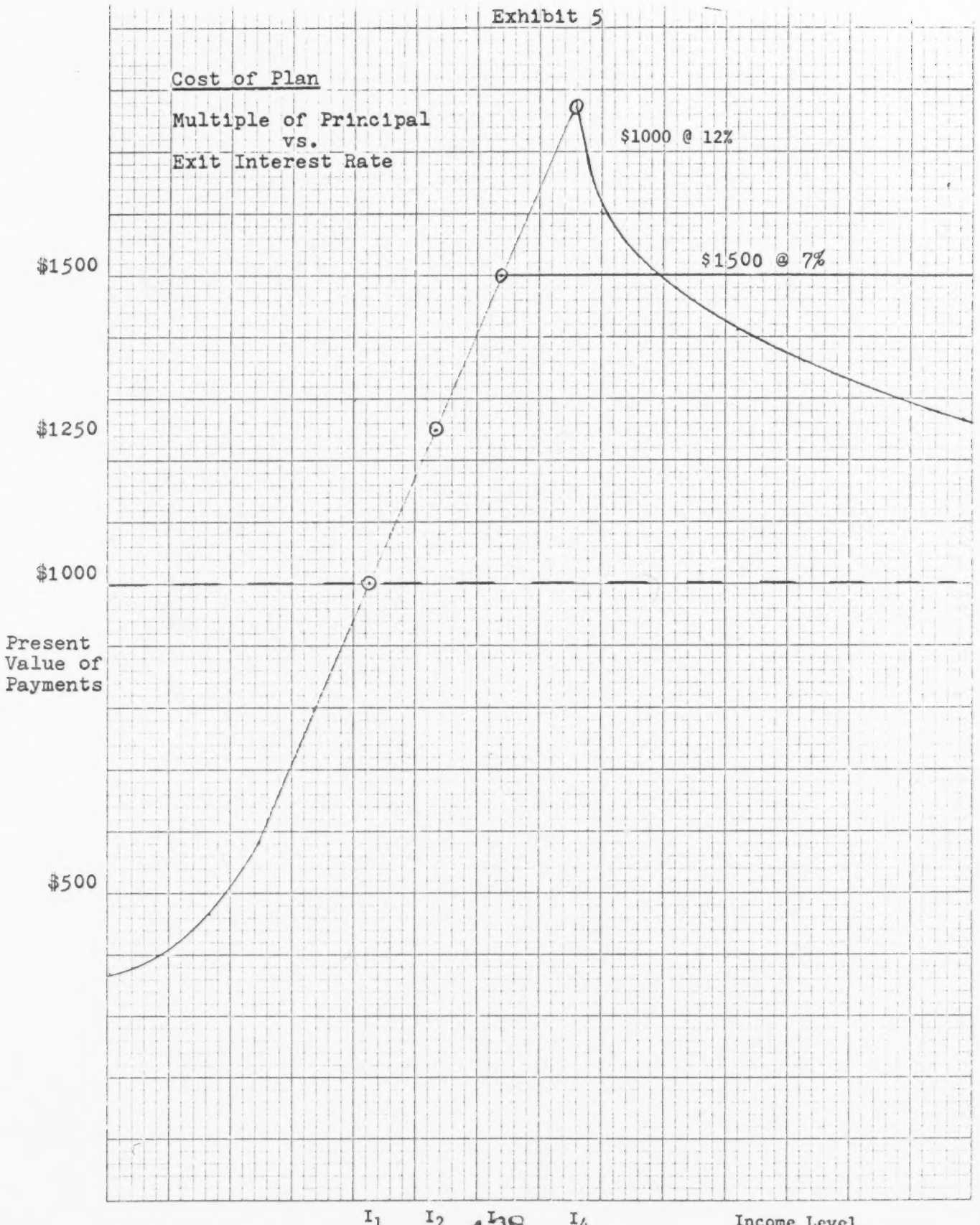
(Voice) You showed a graph today or yesterday in which you had a curve. It looked like a normal distribution curve.

(Chairman Buesking) The 12 percent.

(Mr. Storrs) Yes, this one.

(Exhibit 5)

Exhibit 5


Cost of Plan
Multiple of Principal
vs.
Exit Interest Rate
$1000 @ 12%
$1500 @ 7%
$1500
$1250
$1000
$500
Present
Value of
Payments
I1
I2
I3
I4
Income Level

What we are showing here is the price, in terms of present value, that you pay with different income levels. These are the starting income levels assumed to be growing at 7 percent a year, and this is the price that you pay, or the percentage of a $1,000 loan that you pay back. Now, let's say that some starting income level, I_1, you pay back 100 percent of your loan. This would be your middle income person. Now, under the Yale Plan, if your starting income were I_2, you would put in 25 percent more. If your initial income were even higher, at I_3, now you would be putting in 50 percent more. The Yale Plan says that you never pay over a 50 percent premium; so if your income keeps going up, you will still only put in 50 percent more. With this buy-out system, the premium you pay increases with income and then it stays constant. Since it is paid faster, though, the effective interest rate continues to rise with income.

Under the interest rate system, the premium would increase with income and the fellow who just bought out, might be somewhere in this area (I_4). Then the cost, as your income rose, would decrease. So that the fellow who was very rich, making a very high income, bought out quickly, would put in only, let's say, 10 or 15 percent more than his loan cost, paying the same interest rate as those with lower incomes.

(Chairman Buesking) That is a 12 percent line you have got, is that correct?

(Mr. Storrs) In this case, it was a 12 percent line. Now, you can create a whole set of curves, one for each interest rate you will have them buy-out at. We just did not feel that that was an appropriate way to try to define the buy-out rule, because it does have the cost decreasing as income increases. Here is the actual one I used yesterday.

(Exhibit 6)

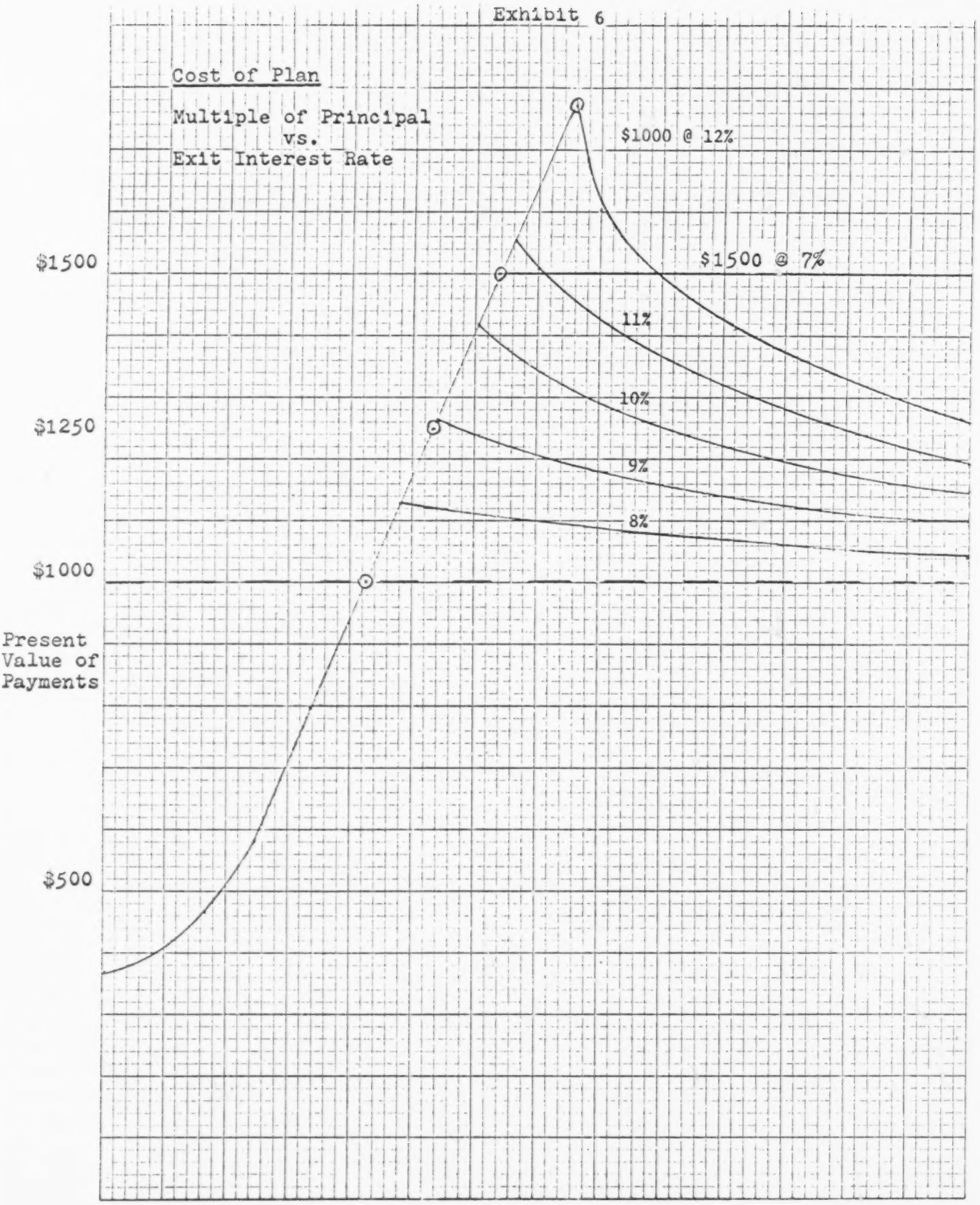
Here is the Yale rule and here is a 12 percent interest rate. Here would be, say, an 8 percent interest rate. This is the Duke rule. If you ever want to get out, you just bring yourself up to paying the 8 percent.

Now, the problem with that is that this person who just buys out at 8 percent ends up putting in about a 12 percent subsidy, 12 percent more than his loan cost Duke. This person with a much higher income puts in only about a 4 percent subsidy.

(Voice) And that is why it is regressive?

(Mr. Storrs) Yes. It is regressive because it falls least heavily on high income participants.

Exhibit 6


Cost of Plan
Multiple of Principal
vs.
Exit Interest Rate
$1000 @ 12%
$1500 @ 7%
11%
10%
9%
8%
$1500
$1250
$1000
$500
Present Value of Payments
I_1
I_2
I_3
Income Level

(Chairman Buesking) I think that was the driving force that led us to the 50 percent rule rather than the interest rate rule. To get an adequate amount of subsidy, we probably had to be in the 10 to 12 percent range, and that proves to be highly regressive.

(Mr. Johnstone) May I add just one point to that, Dave, I think it is important to note that there are two issues involved. The first is simply the degree of redistribution which one wishes to build into the loan plan. As I think you have been shown, high repayment rates and long maximum terms greatly lessen the probability that the student will be unable to repay his loan at cost. On the other hand, low repayment rates and/or short maximum terms increase the chances of a student's having ultimately to be forgiven some portion of his loan balance. The amount of subsidization -- that is, the degree of redistribution from high to low earning borrowers -- is probably the more important question in planning an income contingent loan plan.

The second issue, then, is the technique by which one plans to generate surpluses from high earners to compensate for the losses on the low earners. As Dave has shown you with these graphs, one generates these surpluses according to some upper limit on liability, either through a premium exit interest rate, a multiple of principal at the market rate of interest, or perhaps through other devices, all designed to insure that some portion of high earning borrowers do repay some surplus before their obligations are terminated. One could use Yale's multiple of principal technique with a loan plan that featured very little redistribution of income. In other words, a low subsidy plan might require only 110% of principal at the market rate of interest as the exit or "buy-out" provision. The difference between the multiple of principal and and exit interest rate, as Dave has shown in these graphs, is simply in how the lender wishes to distribute the burden, as it were, of contributing these surpluses. The regressivity of the exit interest rate is simply due to the fact that middle income borrowers actually contribute more surpluses than the highest earning borrowers. In contrast, with a multiple of principal, all borrowers who actually reach the upper limit on liability make the same relative contribution. I might add that an externally subsidized plan -- that is, one which generates no more than the cost of the loan from every borrower -- could exit borrowers with an exit interest rate and not have the regressive feature you have been shown in this chart. It is because an internally subsidized, or mutualized, plan requires premiums from higher earners, that the exit interest rate, which collects premiums longer for middle earning borrowers, has its regressive features.

Finally, a loan plan could use an annual upper limit, much as I suggested in my earlier remarks and achieve the same distribution of subsidy burden over high earners as Dave has shown us with the multiple of principal technique.

I know it's all rather complicated, but my point is simply this: Issue No. 1 is whether the subsidies to low earners are to be recovered from high earning borrowers or from some external source. Issue No. 2 is how much subsidization one wants to build into the terms of the loan plan. And Issue No. 3 is the device by which one chooses to limit the liability of high earning borrowers in an internally subsidized plan. I think only in this fashion can one create an income contingent loan plan suitable in a particular situation. While you might very well wind up with something looking a great deal like Yale's Tuition Postponement Option, I think it is clear that one does not have to begin with the precise terms which Yale has adopted.

(Mr. Storrs) This is the same graph again.

(Exhibit 7)

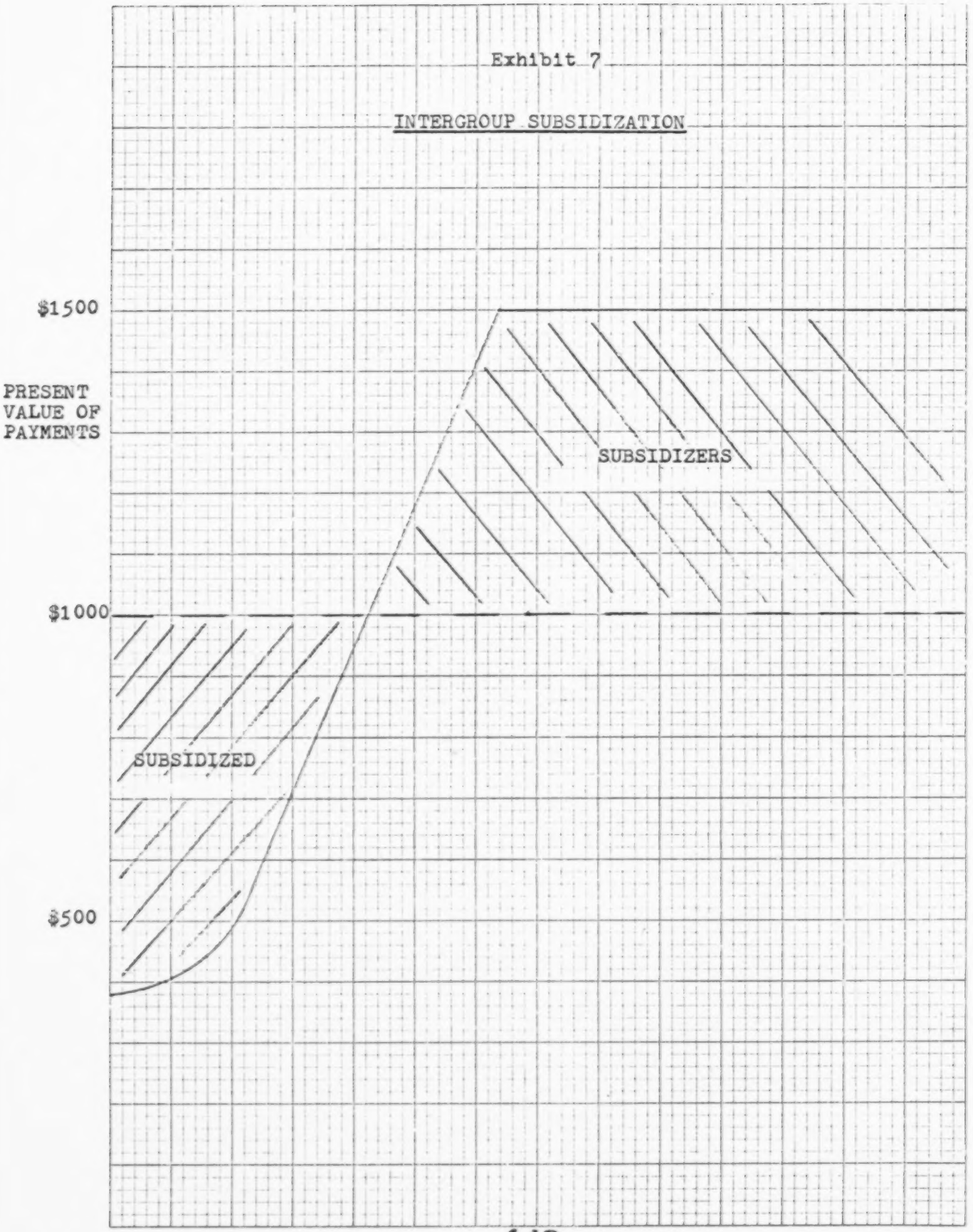
Obviously, we have got this block, the low income people, who are paying back between 40 and 100 percent of what their loan cost Yale. This is the block that we have got to find somewhere, whether we find it out of financial aid funds, whether we find it from high income earners. It has got to be found somewhere, or else the Plan goes bankrupt. But you can just as well change the proportions around, and instead of having a person who makes nothing put in only 40 percent, a person who makes a lot put in 150 percent, you can just as well have the person who makes nothing put in 75 percent and the person who makes a lot put in 110 percent, making the Plan much less redistributive. There is no magic to the figures. The only problem that you have is to make sure that block equates that block. If that occurs, you have got a break-even plan. However you set the subsidy that comes from the high earners, whether it is on an exit interest rate or a multiple of principal, some percentage amount, dollar amount, it doesn't matter. It has to pay for these people who pay back less than their cost.

(Voice) That change would make it more regressive. To make it progressive what you would want to do is lower your four-tenths and increase your 150 payoff, pay 200 or something like that.

(Mr. Storrs) You are right. That would be more progressive and better, in a theoretical sense. This would be much closer to a conventional loan. It is something each school can decide. The whole gist of this discussion is that you can vary the terms to meet whatever definition you have for an optimal plan. The problem is deciding on the goals of the plan, what you want it to do for you. Once you have done that, it is simply mechanical to construct the appropriate plan.

Exhibit 7

INTERGROUP SUBSIDIZATION



LEGAL PROBLEMS

Reuben Clark
Wilmer, Cutler & Pickering
Washington, D.C.

Marshall Hornblower
Wilmer, Cutler & Pickering
Washington, D.C.

Cheever Tyler
Wiggin & Dana
New Haven, Conn.

Arthur A. Leff
Professor
Yale Law School

Ellen G. Estes
Deputy Director of TPO
Yale University

(Chairman Buesking) May I have your attention, please? We will get started on our afternoon session.

Ellen Estes is our Moderator for the panel. She joined us quite recently after having practiced law with a firm in New York as a Yale Law School graduate. On her right and my left are Mr. Reuben Clark and Mr. Marshall Hornblower, both of Wilmer, Cutler and Pickering. They did substantial legal work for us in Washington. On Ellen's left are Mr. Arthur Leff from the Law School, who did some research here on the subject, and Mr. Cheever Tyler, who is from our local legal counsel, the firm of Wiggin & Dana in New Haven.

As you remember, I said our legal research had been fairly extensive. We looked into the precedents of law: usury, tax treatment, Truth-in-Lending, and the Uniform Consumer Credit Code as it was being proposed in the State Legislature here in Connecticut. So without further ado, Ellen.

(Mrs. Estes) Welcome to the final session of the TPO Seminar. I hope you have saved all of your insightful legal questions until now so that our experts can answer them.

We have broken down the areas of expertise somewhat so that we can give you short introductory speeches and then open the floor to questions. Mr. Clark will be speaking about the tax considerations; Mr. Hornblower will touch upon the Truth-in-Lending problems; Mr. Tyler will handle the Connecticut problems; and Professor Leff will give us his insights into the various other legal problems encountered in setting up a plan of this nature.

Mr. Clark, would you like to speak first?

(Mr. Clark) I am not sure that in covering the tax aspects of this plan I really have the most important subject. Frequently, tax lawyers are accustomed to seeing tax considerations change transactions into ways that are scarcely recognizable. Here, I think it is fair to say, the tax problems were, although novel, fairly straightforward. They did not require that the plan be structured out of the ordinary, except in one particular way which I will mention.

In so far as the income tax aspects of this plan are concerned, problems arise from the point of view of the University and from the point of view of the student. A principal problem that might arise out of one of these deferred tuition plans from the perspective of the University, is whether or not it might by this activity have unrelated taxable business income. We looked at this question; we discussed it with the Internal Revenue Service; and we found that this really was not a problem and that this kind of activity, this loaning activity, the business of making loans, if you will, was not so dissimilar from a normal student loan program.

We might note that, if a subsidiary organization were created by a University for the purpose of entering into deferred tuition contracts, it is possible that questions might arise with respect to its exempt status, if the business of loaning money were found to be its principal purpose or a principal purpose. However, in the case of a university such as Yale, there seems to be no activity here that would in any way seriously jeopardize its tax status or give rise to unwanted tax consequences. As a result, after some conversation with the Service, we did not, in fact, ask for a ruling on this point.

However, looking at the plan from the point of view of the student, a number of tax problems arose. Thus, Yale requested a ruling from the Internal Revenue Service covering a number of points involving the tax treatment of student participation in the plan. A ruling request was submitted to the Internal Revenue Service; a ruling was issued to Yale and we are advised that this ruling will be published in the Internal Revenue Bulletin within, we think, the next four to six weeks.

The principal tax question from the students' point of view is whether or not, and to what extent, the cost of entering into the plan for the student is deductible for Federal income tax purposes. We can add that you have, of course, the subsidiary question as to whether such payments are deductible for State tax purposes.

There are two possible avenues for deducting the cost of the plan to the student. You can define such cost as being the excess payments made by him to the University, if any, over the amount that was borrowed. One road is the charitable contribution route; the other is the interest deduction route under Section 162 of the Internal Revenue Code. We explored both of these opportunities and concluded that since the essence of the plan is that the student will be making payments to Yale in excess of the amount borrowed out of earnings, then regardless of whether or not you have a formula establishing the actual amount he is going to repay, these payments,

in fact, constitute amounts paid to Yale for the use of money. This, of course, is the very definition which the courts have given to interest as it is used for Federal income tax purposes. Therefore, the basic request for a ruling that we presented to the Internal Revenue Service on behalf of Yale was whether or not excess amounts over and above principal repaid by a student to Yale would constitute deductible interest. Happily, with one minor exception that I will mention, the Service ruled that this amount would constitute interest deductible for Federal income tax purposes. A major consequence, thus, is that the after-tax cost to a student participating in the plan is very substantially reduced.

In order to qualify these excess payments as interest for Federal income tax purposes, it is necessary that the payments be made with respect to an inconditional obligation on the part of the borrower, the student, to make repayment to Yale. Accordingly, we found some tax difficulty in having the obligation of the student terminate on group termination, thus eliminating the unconditional obligation to pay in full. It seemed to us, and I think it seemed to the Service as well, that under existing law the interest deduction might be jeopardized if the obligation of the student to repay principal were other than completely unconditional. Accordingly, it was determined to require that the obligation to repay principal should survive group termination and, furthermore, to fund the obligation, in the event of death, by insurance. Therefore, a portion of the payments made by the student would be allocated to insurance premiums.

In many instances, lending institutions in fact pay for insurance and give insurance benefits to a borrower and hide the amount in interest charges. But, in fact, this practice has never been formally approved by the courts or the IRS, and it was perfectly clear that, faced with this precise set of facts, the Service was unprepared to rule favorably unless a portion of the payments repaid by the student were allocated to an insurance premium and treated as a non-deductible item.

As you have heard, the plan provides that the payments made by the student are first allocated for repayment of principal and then, after principal is repaid, a small amount is allocated for the repayment of insurance. A very small amount, but it is non-deductible. In terms of obtaining a favorable ruling from the Service, we thought it essential to identify that part of the payments which, in fact, constituted a non-deductible charge.

After carving out principal and insurance premiums, the Service ruled the entire excess to be deductible for Federal income tax purposes. This obviously is of major importance to the higher income student who will repay principal fairly quickly and then, during his or her high earning years, will realize a deduction for interest. In this situation, the Service was prepared to recognize that the dealings between Yale and the students are arms-length for tax purposes. That is, in an arms-length transaction, principal and interest can be allocated by the parties to payments as they wish. The parties can agree to pay interest first and then principal; they can agree to pay principal first and then interest, or apportion as they wish. As long as the allocation is made in good faith, that allocation will be recognized for tax purposes. Here, as I say, for

Federal income tax purposes, students repay principal first, a small amount of insurance, and finally, the excess as interest.

The effect of a Service ruling is, generally, as follows: A taxpayer can rely upon a private ruling which is issued to himself; the Service also has a rule that, where you have a group who are implicitly covered by a private ruling -- such as, for example, the shareholders of a corporation in liquidation or, as here, students who are repaying upon a ruling given to their university -- its policy is that if a student relied upon this ruling given to the university and he is covered by the plan, the Service will not revoke this ruling retroactively. The effect of this may be somewhat more illusive than real, because the Service always is prepared to say that it has the authority to revoke a ruling prospectively. And what constitutes a prospective revocation where the student is four or five years along in a payment plan is something I am not quite sure about. In any event, we can, I think, reply upon the Service's good faith and consider that students as a practical matter can rely on this ruling.

The fact of publication will have some significance for other institutions and other students. The current policy in the Service is that, in the case of a ruling published in the Internal Revenue Bulletin, all taxpayers who rely on the ruling and are covered by the same essential set of facts can rely upon this ruling as setting forth the Service's interpretation of the law.

So we do believe that, at least for Federal income tax purposes -- and presumably, the definition of interest in most states does not differ from the Federal definition -- the income tax consequences of the plan, at least as now structured, are reasonably well pinned down.

(Mrs. Estes) Thank you. Mr. Hornblower.

(Mr. Hornblower) In thinking back over the whole period of drafting the plan and drafting the documents, I keep coming back to a thing I found in the Yale Daily News. Maybe this has already been mentioned in this company. The student writer covering the Plan wrote this paragraph:

"The Tuition Postponement Plan occasionally will stumble on a clear point, but it always manages to pick itself up again and go along as if nothing had happened."

The difficulties of drafting the plan were accompanied by the difficulties of complying with the Truth-in-Lending Act. They were more or less the same. They boil down to fitting the plan into these tax constraints and restraints, plus the whole group concept, plus the many variables and the payback.

The Truth-in-Lending Act involved three different agencies: the Federal Reserve Board, which enacts the Federal regulations; the Federal Trade Commission, which has jurisdiction over the advertising compliance with the regulation; and, I think, the Banking Commissioner of Connecticut, who administers the state law. The federal law says that when the state law adequately copes with the problem, there is a reverse preemption here, and

they will recognize that, and the federals will abstain. However, for reasons which Mr. Tyler can explain, Connecticut could not cope with this or did not want to cope with it, and it was left for us to try to work it out in Washington.

Between the two agencies in Washington, with the Federal Trade Commission primarily, we worked it out. There are two basic documents we cleared -- I believe you probably have seen copies of both -- the Question and Answer brochure which we felt (and the government did too), came within the advertising scope of the federal law. That required careful preparation, in cooperation with Mr. Tyler and with Mr. Buesking's staff, of a common-language explanation of the plan, very much boiled down, and then, of course, the very key attachments to it -- the hypothetical cases of payback, hypothetical assumptions as to the interest rate, the inflationary factor, the payback effect on the income group being considered in each example, and the expectation or assumption as to when, if ever, in the thirty-five years, group termination occurred.

We were able early in the game to persuade the Federal Trade Commission officials that two hypothetical examples of this nature would satisfy the requirements and be meaningful to the students and to their sponsors. A good deal of the effort went into getting the right figures and getting them correctly explained.

The disclosure statement under the law requires a statement of the finance charge divided between interest and insurance, in this case, and the annual percentage rate.

Now, in the disclosure statement we could be fairly definite about the finance charge and the percentage rate on the assumption that the student exercised his option to pay off before graduation. He would pay, as you remember, the amount he deferred, with compound interest. And the only assumption we had to make was that the 7 percent interest rate would prevail throughout the short term of that loan; that is, up to a pregraduation settlement in the student's last year at Yale.

However, in part 3 of the disclosure statement, we had to try to explain the finance charge and the percentage rate over the lifetime of a man's payback. Then we had to again summarize the plan, this time in a more technical way, with citations to sections of the printed plan, and then use the same tables of examples. But here, because each disclosure statement had to be aimed at the individual, we had to crank into that form a table showing what might happen with regard to an individual young freshman deferring $800, let's say, and beginning his repayment at a certain time. We had to estimate how the variables might affect the individual student within the overall hypothetical figures.

As I say, each student has to sign that disclosure statement. His sponsor does not, but I believe we were expected to get it into the hands of the sponsor. I have no direct experience with how these Question and Answer pamphlets and disclosure statements have been received by the individuals, whether they have performed the function that the federal law was designed to require -- whether they have made it clear to the student and

the sponsor just what he is getting involved in, clearer than the actual plan itself.

Getting back to how these were cleared, once they had been cleared in Washington by the Federal Trade Commission representatives, Connecticut clearance was almost automatic. They did review it, but I think they followed the FTC ruling. Unlike some features of this plan and this program, we do not see that there will be much change. So far as we know, the Federal law is not going to be changed in a way that would significantly affect these two documents, the disclosure statement and the Question and Answer form. Although if Yale decides that some other format for advertising would be appropriate, or even for the disclosure statement, we will have to go back to the Federal Trade Commission and clear it again.

(Mrs. Estes) Thank you. Mr. Tyler.

(Mr. Tyler) Thank you. I have a list of questions, and I think there may be more, but there are at least twelve questions involving issues of state law which I think anybody who is putting a plan of this nature into effect in a state other than Connecticut ought to consider.

The most salient of these questions is the usury question. I think the application of local usury laws may prevent plans of this kind going into effect in some jurisdictions. I do not purport to tell you which they are. In Connecticut, we have a usury limit of 12 percent, and this limit gave us a good deal of trouble. The way around it is the so-called Contingent Interest Doctrine which holds in essence that a promise to give a creditor a profit greater than the highest permissible rate of interest, upon the occurrence of a condition, is not usurious if the repayment promised on failure of the condition to occur is materially less than the amount of the loan or debt with the highest permissible interest -- unless the device is used as a sham to collect illegal interest.

For instance, Yale in the average case is taking a chance that it will receive something less than the full amount that it might get if all students were to have a fairly healthy earning projection. It was our view that the chance that Yale would get something greater than 12 percent was so small that the Contingent Interest Doctrine would apply and protect Yale, even in those circumstances where it might actually receive something in excess of 12 percent.

The next question which concerned us was the Truth-in-Lending question. Here, from a strictly legal standpoint, you have a variety of things to choose from. The Tuition Postponement Plan can fit into at least three categories. One, it could be an open-end credit transaction; two, it could be a non-open-end credit transaction; and third, it could be a sale of service transaction. Each of these three possibilities poses different requirements in terms of disclosure.

The choice we made is to treat it as a non-open-end credit transaction. Our State Banking Commission, as well as the federal authorities, seemed to have agreed, so I think at least for the time being, all of you can rely on that conclusion. However, many states have adopted Truth-in-Lending Statutes

and before you put a plan of this kind into effect, I would certainly suggest that you clear your disclosure statements, even if they are similar to the ones we have, with your local state authorities.

The next question was whether or not in putting a plan like this together, the University would be performing a banking function under the State Banking Law so that we would have to be regulated by the State Banking Commissioner. We determined that we were not. Again, this is a question of local law and I would suggest that you look into it.

Next we have the question of whether or not Yale University had the power as an institution to make these loans, and clearly, it did.

We had questions of bankruptcy; what would happen in the event that a student declared bankruptcy? And Art Leff, I suppose, will talk about this. But there have been some instances where Yale students have declared bankruptcy to avoid repayment of tuition loans. What effect would that have upon the repayment obligation?

You have the question of minority. Not all of the students will be adults at the time they sign the contract. If the student is under a legal disability because he is a minor, then you have to consider the question of ratification and of getting him a sponsor or guarantor.

That leads into the question of jurisdiction. How do you get your hands on the guarantor who is living in Arkansas and doesn't want anything to do with Connecticut, and who isn't going to pay his son's loan from Yale? What we did to solve that problem was to have everybody appoint a statutory agent to receive service of process in Connecticut. I gather that other plans have solved this problem in a similar way.

Another question is whether or not if you did bring an action against either a borrower (student participant) or his sponsor, would Connecticut law apply? I think we answered the question fairly well, that yes, Connecticut law would apply, although it was a more difficult issue as far as the sponsor was concerned.

We have also the question of the form of the contract. How do you put the contract together? That is a reasonably simple question, but I think it ought to be considered.

The most significant legislation affecting TPO potentially was the UCCC, the Uniform Consumer Credit Code. This law has been passed in some jurisdictions, and if it is the law in your state, I suggest that you look at it carefully in relation to your plan or proposed plan.

Here again, as was true under the Truth-in-Lending law, you have the question of choice as to whether or not this is a sale transaction. In other words, whether the University is selling services on credit, or whether it is making a consumer loan. The UCCC has restrictions against prepayment penalties for prepayment of a consumer loan transaction. In other words, the Yale plan, as you know, does have a 150 percent "bail-out" provision. If you want to pay off early, you have got to pay 150 percent of principal

plus interest, and that, we thought, could be construed as a prepayment penalty which would violate the provisions of the Uniform Consumer Credit Code.

Also, can an out-of-state consumer consent under the UCCC to the jurisdiction of the state in which the transaction was made? This is unclear under the UCCC.

Furthermore, if you change the interest rate, in our case the contract interest rate, in mid-stream, you have got to give the borrower notice and you have got to give him notice within a certain prescribed time. There are limits on default charges and you also have, in the typical Uniform Consumer Credit Code Statute, the question of the regulation of those loans which might run in excess (in Connecticut) of a 10 percent interest rate. Under the UCCC as it was drafted here, if you made a loan whereby the borrower could repay at a rate of more than 10 percent interest, the borrower had a right to repay the obligation in thirty-seven or more installments.

Also, the UCCC would have repealed the Connecticut Truth-in-Lending law.

Finally, the UCCC has insurance provisions to the effect that if you provide insurance to a borrower under a loan transaction or sales transaction covered by the UCCC, the borrower had a right to provide his own insurance, which I think would have run afoul of our plan.

I raise these questions simply to point out to you how the UCCC, in those jurisdictions where it is or may be passed, might be a substantial impediment to the implementation of one of these plans. Fortunately, the bill did not pass our Legislature.

The last thing I can mention to you is the question of insurance laws in your state. In Connecticut, if you provide credit insurance or life insurance, under certain circumstances, the borrower is entitled to (A) provide his own insurance, or (B) he is entitled to certain certificates of insurance evidencing his participation in a group contract. We avoided that by application to the Insurance Commissioner on technical grounds and were successful, so that we now can have an insurance program independent from those we have mentioned.

(Mrs. Estes) Professor Leff.

(Professor Leff) I am going to talk for a very short period of time, because if I talked proportionately as long as the work I had to do in the formulation of the plan was in comparison with the other people here, I would be finished right now.

The thing that is interesting about the plan from my point of view, and I suppose from your point of view, too, is that while one talks about the complexity of it, it should be emphasized just how striking a kind of plan it is. If you picture what it is, it is a non-collateralized, partial-joint-liability, multi-party, nationwide, variable-interest-rate, small-loan business, to people with only potential wealth. And that also means, of

course, people with no credit rating and no way of getting a credit rating.

In addition, if I can stretch out that word "people", that means not just minors, as they frequently are when they enter into the plan, but students. All in all, it is not that risky (though it is, somewhat, because it is non-collateralized and all that kind of thing). It just breaks open all the categories that lawyers and bankers and people like that are used to working with. I mean, if you go into your friendly neighborhood banker and say, "I would like to borrow some money to tide me over for the year", well, that is taken care of by the credit rating aspect. If you go and say, "My guarantor is my father who is in business", they say, "That is fine".

Here, you have got partial guarantees supplying some of it and you have also got part of this group collateralizing or guaranteeing each other's performance. It is a very, very striking departure. It is like practicing law in the United States and then being presented by a European client with a proposal that you pay money to him against a "mortgage", an inhaber schuldbref, which makes perfect sense within their system, but nobody here understands how it works. It works for that other country and it fits into all of its other categories because there are other security devices that fill in the background. In the U.S. we have got set security devices with other gaps filled in by other security devices, second mortgages and things like that.

What happens with the TPO plan is that what is essentially a small loan business has been transferred into a long-term payout. I mean we are talking about thirty-five years, which is basically a mortgage pay-out time. It is a very strange situation. What that does, of course, is to open up all of the categories that are mentioned here. Suddenly they are cascaded down on your head. How can we talk about a funny-looking animal like this one in terms of usury, disclosure statements, taxes, corporate powers, regulatory statutes in the state, bankruptcy, the UCC and the UCCC, conflict of laws, jurisdiction? Each one of those things has to be thought about separately, because this plan does not fall within the neat categories that have been set up for the normal kind of longer loans. One of the things that happens is that you find yourself in a situation where a statute has words that seem to apply to your situation, and you know, and the public most likely knows, and certainly the regulators know, that your plan is not at all what the legislators had in mind.

For example, to meet the absolute requirements of Truth-in-Lending, if we were to characterize TPO as a plain old loan, would be impossible, because you would have to tell each participant what he would pay under a contingency that neither you nor he knows is going to happen. Therefore, what lawyers must do, and what the lawyers actually did here, was to go back to the administrators, and occasionally, lo and behold, they are perfectly reasonable. They say, "All right, since you can't comply with the strict requirements of the law, come as close as you can. Set out some facts. Specify at least something like the range of your payments, and finance charge -- use our magic words for us. Say that the finance charge is likely to be in between 8 and 937.8 percent. Say something and come as close as you can."

The main thing about the legal problems, and I suppose this is my only message, is that the only way this can be done successfully without really falling onto dangerous ground, is to have somebody devoted to thinking horrible thoughts as to what dreadful possibility could possibly befall us under any of these contingencies.

Someone has mentioned the bankruptcy problem. These students not only have no credit rating, but by and large have no wealth. They could easily claim bankruptcy. Now, that would be a swinish thing to do, but of all the swines in the world, occasionally some of them do drop in at universities. It is a risk like anything else. It is nationwide, and if you have to sue somebody to compel him to pay off his debt, and he is in some far-off place, like California, you may prefer to write off the debt than to bother with a suit for a small amount, especially if the debtor has disappeared. There is nothing magical about this plan; a deadbeat will get you whether he is under a very fancy complicated plan or he just hits you for $10 in the street. You are going to have to expect some write-offs.

The main thing, it seems to me, is to sit down and recognize that we are dealing with a really bizarre, at least at the beginning, financial transaction. Think of everything horrible you can, and then cure it, because almost any one of the problems can be cured, if you think about them in advance. If you wait fifteen years for somebody to say, "Aha, I found a little hole in this: this happens to be usurious. Why don't you forfeit all the interest and principal on all those loans for everybody for fifteen years," that is a disaster.

One last thing. If you have a law school where you are, it is a good idea to have a law teacher think about the horribles, because most of the horribles have to do with the interpretation of laws, and of students, and law professors are the only people who structurally are forced to have to do with <u>both</u> of them.

(Mrs. Estes) Now that the legal problems have been outlined, you can ask some questions. I am prepared to give some answers concerning the spouse rule, if anybody is interested in that, not so much from the Women's Lib point of view, but rather, from the point of view of cash-flow back to the lending institution. What I mean to say is that a participant who is married can change his repayment obligation if he files a separate return, depending upon whether he is living in a Community Property state or in a Common Law state. So if anybody is interested in that, we can go into it. But meanwhile, I would like to hear some of your questions.

(Voice) I would like to ask Mr. Hornblower, since it is probable that there will be as many different plans as there are institutions that utilize deferred tuition in the future, is it necessary to go through the FTC with each different plan and have it approved by them?

(Mr. Hornblower) The plan itself would not be subject to approval. The disclosure statements and advertising would be. I do not think in every case you would need to. If you model yourself on the precedents already created and think that your documents are similar enough, I would go ahead. But there are an awful lot of bad consequences to making slips

in any one of these areas. The safe course is certainly, if you have a state body that regulated Truth-in-Lending, definitely to clear it first with them.

(Mr. Tyler) One thing that you ought to keep in mind is that the advertising aspects of any plan are within the jurisdiction of the Federal Government. In other words, there is no way that the state can preempt that by enacting any laws. That remains within the Federal jurisdiction. But I would like to underscore the point that Mr. Hornblower made, namely that the consequences of failure to comply can be horrendous since you may find yourself in something called a "class action", wherein a single plaintiff could purport to represent himself and all others similarly situated. Also, there is a statutory penalty for failure to comply with the Truth-in-Lending law. If you do not take reasonable steps to comply, you may have to pay a penalty of twice the finance charge, within a minimum of $100 and a maximum of $1,000.

(Mr. Hornblower) The danger in this kind of thing is not just in the Truth-in-Lending area. A case was just handed down in the District of Columbia a week ago: all of a sudden, the mortgage bankers who have been lending money in the District for fifty years, since 1913, at rates depending on the money market, going over 6 percent, which is a legal rate for certain purposes -- all of a sudden the court said that because the bankers did not get licenses, those loans were all illegal. And I believe at this point, certainly the interest is wiped out, and I think some of the principal is too. And it has created chaos. They have to go back to Congress and get a law to try and cure it and Congress is dragging its feet on the thing.

(Mr. Storrs) If I could comment a little bit on the disclosure statement, we found that although we were not anticipating this to be a tremendously educational tool, I think this might have actually been serving very well the intentions of the Congress. We took every student coming to Yale, every freshman who had no idea of what he was really getting into, although he might have read the brochure quickly, and this means every student who signed up, we took him through the entire disclosure statement to outline every contingency which he was liable for, to show him exactly what payments he would make, based on different incomes, to show him the range of interest rates. I think, as counselors or advisors in the office, it became very striking how useful this document was, as opposed to some others that are used to hide some of the facts by waltzing over them. That is just an observation from talking with the students.

(Mrs. Estes) I think we felt very strongly, Dave, that our obligation was even to go beyond the disclosure statement. We were spending approximately a half an hour, or twenty minutes to a half an hour, with each individual student. (Actually, sometimes we were seeing them in groups of four or five, because at the peak load, we were working from 8:30 in the morning to 8:00 at night, during that last week.) We were processing an awful lot of undergraduates at that point, and the undergraduates, at least from my limited exposure, are the ones who seemed to be very unsophisticated. Some of them did not know what a tax return looks like, so that the term "adjusted gross income", for instance, had absolutely no meaning. Some couldn't see

why they should have to pay any interest for the use of money. So, not only were we giving them the information from the disclosure statement and basically outlining the contract, but also, we were having to give a little lesson on what life is all about.

(Voice) I have a question for Mr. Tyler. Does the use of a plan such as Yale's, which involves a cohort, permit you to view the composite return of interest in relation to the laws, or must you still get the rate of return from the individuals? All the graduates of '72, for example, start repaying. How do you define cohort? In other words, can you look to that group and say, "Our composite return of interest is less than 12 percent", or whatever the interest rate is?

(Mr. Tyler) I am not sure that you can. If we ever get in trouble, we are certainly going to try. Typically, the usury law is applied to a one-to-one relationship, so that it is one lender and one borrower. One of the things that we came up with, which I think is useful to you in talking about usury, is that there is an obligation not only to the lender, but also to the group, and that you have a two-way relationship here. In other words, a lot of payments that the participant is making could be characterized as payments to the group because of his obligation to the group to discharge the entire group obligation. That goes along and fits into what you are saying, but I think that a strict reading of the average usury statute would not allow you to say, "All right, what we are getting back is an overall rate of interest from the group," because it is typically a one-to-one situation. However, your question is relevant, I think, to the application of the contingent interest doctrine.

(Chairman Buesking) Can't you say that the intent of the Yale plan is to be non-usurious, that is, 12 percent or below on the overall group composite rate? There is that limit on the plan which demonstrates intent, which is also part of the usurious consideration.

(Mr. Tyler) The plan provides that the overall return to Yale cannot exceed 12 percent. So that if there is an element of intent in the usury law, and there is, and in the application of the contingent interest doctrine, this limitation is a significant one.

(Mr. Hornblower) May I make a footnote on interest? Keep in mind that even if you stay under the percentage interest rate specified in your usury law, you might still in some states fall afoul of a public policy prohibition against compounding interest in a loan like this. So you have got to check that out both in your statutes and in your old case law.

(Mr. Tyler) This was an interesting feature of our Plan. Originally, we were entitled to compound interest semi-annually. The question was raised as to whether or not that would have an effect on our usury law. This question has been dealt with in Connecticut and in old cases: compounding interest before interest was due, violated public policy and would, therefore, be void. In other words, if you got to the end of a year and the debtor had not paid his loan, you can compound the interest and go to another lump sum, including past-due interest. But if you compound it during the year, there was substantial question as to whether or not that would

violate public policy. I think in response to our worries on this the Plan was changed to compound interest annually.

(Chairman Buesking) We wanted to do it continuously.

(Voice) Would there be anything to prevent a wealthy donor who has, let's say, bought out his obligation to a group, from deciding that he would prefer to donate his money to the group because he has more in common with them than to the University, and thereby buy out some or part or all of the obligation of the rest of the group?

(Chairman Buesking) I don't know whether they thought of it. We have kicked that one around. The Alumni Fund worried about this, that some group might get together and buy themselves out. There is nothing that prevents any individual from buying somebody else out as a gesture of philanthropy.

(Voice) It would help your cash flow, but probably hurt the University.

(Chairman Buesking) I don't know. It would not hurt the plan; it might have an effect on alumni giving, either for capital purposes or for the annual gift.

(Professor Leff) That has to be a very expensive gesture for somebody to make, because he loses his charitable deduction. A group of your fellow students at Yale University is not a qualified charity.

(Voice) Couldn't he give it to Yale University and restrict it to the use of TPO? That is part of Yale University.

(Professor Leff) I don't think so. That is a debt owing to Yale University, not an obligation <u>of</u> Yale University.

(Mrs. Estes) These are individual obligations we were talking about.

(Voice) But it is also a group concept. I don't know anything legal --.

(Mr. Clark) Actually, you are raising an area that has a number of tax traps in it. For example, if the plan had been so structured that an individual borrower could, in effect, not have repaid the principal amount borrowed, and if this were accomplished by the fact that wealthier members of the cohort had paid his principal amount for him, we would clearly have a serious question with the Internal Revenue Service whether the beneficiary of that payment was in receipt of taxable income.

(Mrs. Estes) Are there any other questions?

Perhaps you might like to hear, then, those of you who have students from one of the eight community property states, which are: Louisiana, Texas, New Mexico, Arizona, California, Nevada, Washington and Idaho, what might happen in the event that any of these participants went back home

and availed himself of the local property law in terms of paying back his loan.

First of all, just a bit of history. We all now just accept the Joint Income Tax Return as a way of life. In actual fact, it is a fairly recent development, having come into existence in 1948, pursuant to a great hue and cry from those states which did not have community property laws then in effect.

I am going to give a couple of generalizations, which are only generalizations and which do not apply to every state, but just something that we can work with. Assume a community property state, let's say, California, has a rule which says that all income earned during the marriage by either spouse is deemed to belong one-half to each spouse. We can work with those figures to begin with.

In such an event assume husband earns 80 and wife earns 20. If husband is the participant under TPO, and he is in a community property state where he and his spouse file separate income tax returns, he is deemed to own half of the 80 and half of the 20, so that his TPO repayment base on his separate return would be 50. If he lived in a common law(non-community property)state he pays on 80 (his own earnings or one-half of the joint, whichever is greater). This is where the higher earning spouse gets the discount by living in a community property state.

In the event that under the same set of facts (husband earns 80; wife earns 20) the wife is the participant in TPO, what is her repayment base if she files a separate return in a community property state? Her separate TPO repayment base is 50; and in a common law state it would be 20. If she and her husband file a joint return, her repayment base would be the higher of her own income or one-half of the joint, so she would be paying on 50 in either a community property or a common law state. That looks fairly simple, but you can see there are certain differences depending upon where the spouses reside.

Now let's complicate the matter a bit and say that instead of earning 20, wife has income from separate property of 20. Now, assume the local property rule says that the earnings of both spouses during the marriage are considered to be one-half owned by each spouse, and also that separate property, (which is defined specifically as property brought into the marriage by either spouse, or property acquired during the marriage by either spouse by gift, devise or bequest) remains separate. What does that do to our repayment stream where husband earns 80 and wife has 20 coming from separate property. If husband is the TPO participant and they file separate returns in a community property state, his separate return looks like this: he is paying on half of his earnings (40), and since separate property belongs to his wife, he has no interest in that. In a common law state, however, he would be paying on his own earnings (80). On a joint return, his repayment base would be exactly the same as it was before: 50 in a community property state, and 80 in a common law state.

However, in the case of the wife being the participant under this set of facts, if they file separate returns, her repayment base is 60 in

a community property state, and 20 in a common law state. The joint return in a community property state would produce a repayment base of 60, and in a common law state would produce a repayment base of 50.

This is just to give you some idea as to how the local property law can affect the repayments that are made to the lending institution, simply by virtue of where the people happen to live. Can I answer questions?

(Chairman Buesking) Those are pretty dramatic differences. Are there any more questions?

(Voice) Supposing the participant had no income?

(Mrs. Estes) If the participant had no income, but the spouse earned 80, the community property rule is that the earning spouse's income belongs one-half to each spouse. So that if 80 was the total family income, the separate return of each spouse under those circumstances would show income of 40 in a community property state. One-half of the income on a joint return would also be 40, so that the particular participant's repayment base in a community property state would have to be 40 whether separate or joint returns are filed. Does that answer your question?

(Voice) Well, I am not too sure about this common law business and so forth, but assume that one spouse has an obligation prior to marriage. Is it assumed by the other spouse?

(Professor Leff) It is not necessary for a husband to pick up his wife's obligation. The point is that her obligation is going to be measured under the TPO rule by the joint return, if they file a joint return. The joint return is as much hers as his. That becomes his obligation.

(Voice) Supposing he says, "Nothing doing. I am not going to pay."?

(Professor Leff) I think you are asking a further question: What if he says, "I am not going to pay it," and she says, "I am not going to pay it"? Then you sue her. You cannot sue him. And if she has nothing to seize, then, of course, you are out; she would beat you. But, she is likely to have a few little things of her own, and you are likely to recover something.

(Chairman Buesking) One point I might offer concerning the usury problem. In looking at the probabilities of whether or not somebody would, in fact, pay a usurious rate as an individual above the 12 percent, we find two things: one is, if he buys out on or after year fourteen, the effective interest rate is under 12 percent. He has to have bought out either by advance payment, which is his own choice, or have had an extremely high income to have bought out before that time. It starts around -- I am trying to recall my starting point -- it was either 18 or 20 thousand dollars of income on day of graduation, growing to 180 thousand dollars in fourteen years on the 1040. The likelihood of that happening is very slim. So that in sampling the income profiles of Yale graduates, it seemed a very unlikely

prospect that you would have anybody who would actually fall into this usurious category, except those who voluntarily made the payment, which is a different kind of consideration, I believe. That is not a contractual obligation on his part or our part; that is a specific act of his own to buy out early.

(Mr. Tyler) I think that is a fair statement. I have here a letter from Richard Ferguson, just to kind of back up our opinion.

(Voice) I would like to pursue my gift question one step further, if I could. I could give, say, to Smith College, an endowment loan fund, the income of which would go out for extending loans to college freshmen. What would prevent me from endowing a fund which would help already graduated people pay their TPO obligation to Yale College?

(Professor Leff) It seems to me -- look at it in the following terms. You have a $100,000 building on your campus. I will make you a gift of $50,000 for you to destroy that $100,000 building. You are not making a gift to the college; what you are doing is saying, "College, I am giving you money so you can destroy one of your assets." I would think that if I were the Internal Revenue Service, I would not treat that as a gift to Yale University, because Yale is not getting anything out of it. It is a gift to the people who would otherwise have to pay this money. I think in a situation like that, you would not get a charitable deduction. I think there is a possibility that, except for the $3,000 annual exclusion, there would be a gift tax.

(Mr. Tyler) Further, as Mr. Clark said a moment ago, it is also likely or possible that if you made such a gift, the individual participant who had a contractual obligation to make payments to Yale would be in receipt of ordinary taxable income. So maybe you should do it some other way.

(Mr. Clark) It would be a factual question, I suppose, whether such a voluntary act would give rise to ordinary income for the recipient, or whether there would be a taxable gift between the donor and the individual beneficiary. There is some law, by the way, on the question as to when a charitable donation is, in fact, non-deductible because a personal benefit arises out of the circumstances of the gift. The Service has been very active recently in taking some strong positions that look through to the substance of such transactions. This question has arisen in the parochial school area. It arises in the nursing home area, and several other areas as well, so that the possibility of having this kind of a transaction looked at and scrutinized very closely obviously exists.

(Voice) What about a gift to the college or university for the Financial Aid Program which, in turn, is a gift or a waiver of an obligation that should be paid? Is that a deductible gift?

(Professor Leff) It is not. When you make a gift to the Financial Aid Program, you start out at the base line: if the school had one million dollars and the donor gives $200,000 more, the school will have assets of $1,200,000. However, if, on the other hand, the donor directs the school

to cancel some of its accounts receivable with that $200,000, the school's assets would total only $800,000, as follows: $800,000 cash in the bank; $200,000 of accounts receivable, which have been cancelled by the $200,000 donation. Here the school is not benefited by the so-called gift. That is the difference.

(Voice) Supposing he takes the position that it is a bad group and everybody in the group is dead?

(Professor Leff) In order to have a gift, someone has to accept it. If the school thinks it is going to cause any harm or cause harm to the group and is not going to help the school, it will not accept it.

(Voice) I am not sure if I am asking the same question or not, but it may be that the thought reminds some people of the notion that money can be raised, rather than going to commercial sources, by obtaining endowments which serve as the initial source of funds to get programs like this under way. Do you feel that this is not possibly the basis of what you have said? In other words, someone cannot donate one million dollars which will be the capital to undertake this thing?

(Professor Leff) If they just leave a million dollars and do not, as a requirement to their gift, make you cancel obligations owed by other people, then, of course, you can use it. That is no problem at all. They are giving you money to use for this plan. If a condition of their gift is that you cancel an equal amount of money that in effect you already have, then I do not see how you can say it is a contribution to the University. "Come out even", is what they are saying.

(Voice) To change the subject, at a later date, could the contract be assigned as collateral for borrowing from a commercial bank?

(Chairman Buesking) The answer to that is "Yes", I think. We have got the right in the contract to assign the contract, to use it as collateral or otherwise negotiate it. The only thing is that the people to whom you would assign it would have to carry out the terms that are incumbent upon them.

(Professor Leff) There are two separate questions in there. I frankly have not looked into it, but I doubt whether the document here is negotiable as such in the normal sense of the term. However, the only way you can make something non-assignable is to make it specifically non-assignable. Anything that is assignable can be assigned for collateral.

(Voice) How much difficulty is there in pledging portions of endowment funds as guarantees for a bank loan? That is, are you able to pledge the traditional endowment funds as a guarantee?

(Chairman Buesking) I don't know about other answers here, but Yale's answer is that the only assets we think we can pledge for this purpose are those that are not restricted as to purpose, or whose purpose is for scholarship or student loan programs. We cannot pledge the funds and the assets associated with the funds for the Sterling Professorship of Economics that Jim

Tobin occupies, for instance. There is no way that we can pledge restricted endowment funds as collateral here. We are precluded from using them, so in my own mind, the only thing we can use for this is what we call university unrestricted expendable endowments or funds. This is one of the reasons for our constraints as to the amount of capital we think we can raise. There is only about 5 percent of our total endowment fund available that has this kind of flexibility behind it.

(Voice) Is that somewhat typical of college endowments, that some quite small percentage -- in other words, 5 or 10 percent are, in fact, legally pledgeable?

(Chairman Buesking) No, I think our benefactors have been more restrictive in their donations to Yale than other places. We find many places with sizable endowments where there are considerably less restrictions, both as to purpose and as to use of principal.

(Mr. Tyler) I don't have an answer, but, Bill, let me ask a question in response to his. Even if you have reasonably unrestricted funds, don't you have the ancillary question as to whether or not you can expend principal as opposed to interest?

(Chairman Buesking) You do.

(Mr. Tyler) In other words, if somebody gives you so many dollars to be used for Yale's general purposes, don't you have hidden in that gift, perhaps an implication that you must invest the principal fund and only use the interest? That is a peripheral legal question for which I have no answer. Somebody in your shop has answered it, I think, but I don't know what that answer is.

(Chairman Buesking) There are two states that have answered legislatively. New Jersey has passed a law which has been reviewed by their Supreme Court Chief Justice and had a declaratory ruling, I think, that gets around this problem as to what is yield or income from endowment and what is not, and what you can and cannot use as principal.

(Professor Leff) Until relatively recently, it was assumed in many jurisdictions that the university could not even spend its realized capital gains. Recently, say in the last ten years, there has been a loosening up in the legislation of jurisdictions so that at least some portion could be attributable to income and, therefore, spent currently by the university.

(Mr. Storrs) I have a question on the tax aspects of forgiving part of the principal. We give grants to students today in the form of scholarships, and I don't believe they are considered income. Now, rather than using his parents' present income, why could we not use the student's future income as the criterion for scholarships? If his future income proved insufficient to discharge his loan principal by the time of group termination, the unpaid balance would be considered a scholarship, and received in the form of loan forgiveness.

(Mr. Clark) Well, I think the problem, at least as far as this question is concerned, comes back to the point previously made, that we are

falling within traditional tax concepts here. For example, it is clear that a scholarship made by a university to a student is not taxable income by virtue of specific statutory exceptions. It is also clear that a loan to any one, student or non-student, is not taxable income. However, if a loan is forgiven, the general rule is that it then results in taxable income, or constitutes a gift, as the case may be. If the forgiveness of the loan also falls into the concept of a scholarship, it may be exempt as a scholarship.

I suppose that you can create a situation where the forgiveness of a loan is, in fact, a scholarship. But we have not found it necessary to get that far down the line. For various reasons, we had to create an unconditional obligation to repay. This was most important for our purpose of getting the tax questions answered that we wanted answered. Given that situation, the Service ruled specifically that the student under these circumstances is not in receipt of taxable income by virtue of Yale's deferring his tuition, because, like any other borrower, he has an unconditional obligation to repay the loan.

(Voice) Several times you have made reference to the unconditional obligation to repay, and yet as I understand it, a low income earner may very well end up paying less than the principal.

(Chairman Buesking) No, he cannot pay less than the principal amount. He has to pay the minimum, which is the principal.

(Voice) Oh, people keep paying even if the group terminates in thirty years?

(Chairman Buesking) If he has not repaid his deferred amount.

(Voice) What is that little group before the line in Mr. Storrs' example?

(Chairman Buesking) That is the group which pays less than the average interest rate. That is the difference between, say, 7 and 0 interest rate. But the obligations of those who have not paid their thousand dollars back at group termination cannot be terminated. Those participants continue as individuals to pay $29 per year, per thousand for whatever that is worth.

(Voice) Do the universities profit, then?

(Chairman Buesking) First of all, we expect very few people to be in this situation. We do not think there will be many, and we think the cost of administering those will far exceed the amount that might dribble in as a result of it.

(Mrs. Estes) I would like to raise an issue which, though not strictly a legal one, is one that bothers me. That is the problem of permitting foreign students to take this plan. We have spent two days here deciding what it is that you are repaying, and what you are repaying is based upon a concept that is sort of unique to the United States tax law: you are paying

each year a percentage of your adjusted gross income, with certain variations. What happens, then, when you have a student who goes back to his own country which does not have a tax law, number one, and if it does have a tax law, has nothing comparable to our concept of adjusted gross income? He has not got much income in the first place; there are currency restrictions in his own country which will not permit him to send more than a few dollars each year out of the country. We have not solved this problem yet. In the event of default, Yale has the opportunity to sue in a Connecticut court and to recover a beautiful Connecticut judgment, but if Yale is going to enforce it in a far-off land such as Algeria, you have a different problem than if you had to enforce it in a sister state, such as California.

Now, we have three different plans, as you know: undergraduate, professional schools and the graduate school. At the moment, no foreign student in the Graduate School is eligible for TPO. But certain professional students and certain undergraduates are, even though they come from foreign countries. We have made certain administrative decisions as to which ones we will let in and which ones we won't, but if you are thinking in terms of your own plan and you have a substantial number of foreign students, you have got to keep these problems in mind.

(Mr. Hornblower) I would be interested in knowing what the criteria are for letting foreign students take the plan. Is there a general set of criteria?

(Mrs. Estes) Yes. We have formulated several rules. First of all, the student has to be either a permanent resident alien and have a U.S. sponsor (and the U.S. sponsor, by the way, takes on a very substantial responsibility when you are talking about sponsoring a foreign student as opposed to sponsoring a minor)-- or if he is not a permanent alien, but has a visitor's visa, he must have a sponsor and in addition he must come from a country which in our opinion -- and there you get into all kinds of variables -- has some sort of a tax system that enables us to find out what his adjusted gross income would be; has some sort of a regulatory agency that we can go to and check and find out what his adjusted gross income in fact is; and which has no present currency restrictions against sending money from his country to the U.S. Obviously, the currency restriction problem is subject to change, and we are talking about a long period of time, so we have not guaranteed anything so far. As soon as you have got foreign students in the plan, it seems the other students have a greater risk.

(Voice) The sponsor is a guarantor who could sign for him?

(Mrs. Estes) In the event of default on the part of the participant, the sponsor then must pay the debt in full. So we are protected if we can sue and recover from the sponsor. But very few people are going to want to be sponsors in these cases, you see.

(Mr. Tyler) Can I ask Mr. Clark a question? Speaking about the insurance question, there has been, as you know -- I think it was Arthur Gardner's idea in your firm -- question as to whether or not insurance is or is not necessary in a plan of this kind to satisfy the requirements of your unconditional obligation, on the theory that the question of deducti-

bility won't come up until the principal is paid up in full anyway, and therefore, why do you need insurance? I don't know whether or not you have given thought to that. I am sure you have.

(Mr. Clark) Well, if a student borrower dies owing principal, his estate either does or does not have an unconditional obligation to repay the remainder of that principal. Normally, a borrower who borrows a certain sum and dies leaves an obligation to his estate. It is in this sense that the obligation is an unconditional obligation to repay, notwithstanding the contingency of death.

If Yale undertakes to assume the insurance risk, then the question is who pays for it? If, in fact, Yale paid for it other than out of the group, there would be no need to allocate any portion of the repayments for insurance. However, Yale is not prepared to pay for it except out of the group. Since Yale wants to pay for it out of the group, there is, in fact, a group payment allocation factor for insurance benefits. It is obvious it is there, and it is obvious also that the Service will recognize the actual fact of insurance being there as an element in the total repayment to Yale.

Now, as I pointed out earlier, the insurance element in credit transactions is frequently fudged, but here we were going for a ruling involving very novel issues. I can assure you that the Service had never seen a ruling application like this one before. It seemed to us that the wise thing to do, particularly since we needed a quick ruling this year on the main elements of the plan, was to deal squarely with the insurance element if, in fact, the group was paying for insurance benefits. It is perfectly evident that the Service takes the position that, in credit transactions, if the borrower makes payments for insurance, or for brokerage fees, or for any other specified purposes, these are not deductible as interest. I would not want to say that possibly the insurance element in a plan such as this cannot in the future be handled in a different fashion, but at least for the purpose of getting a ruling that would establish the tax consequences of the main aspects of this plan last spring, it seemed to us wise, and I think it proved to be wise, to deal with the insurance element in this way.

(Voice) Sir, would the same thing apply to premiums on long-term disability as well as life insurance?

(Mr. Clark) Yes, I think so. If the payment of premiums is to the group, then there is a factual element there in the repayment schedule that should be identified and not left fuzzy. You see, we were seeking a ruling to the effect that everything over a certain amount was deductible interest. And it was necessary, in order to get that ruling, to assure the Service that, factually, all the excess was paid in for the use of money and was not paid in for some other economic purpose which benefitted the borrower.

(Mr. Tyler) Is that to say that it is possible, then, that if a university sets up a plan of this type, it should opt to self-insure? That is, not to buy insurance, but simply to take the risk out of its own funds of economic loss due to death or disability or whatever happened? Could you say that insurance conceivably might not be necessary to achieve the fixed obligation result that you need?

(Mr. Clark) Yes, but it still seems to me that you have problems. Conceptually, we are dealing with the definition of interest as payment for the use of money where there is an unconditional obligation to repay. If Yale grants a conditional obligation to repay, you have the problem that there is not an underlying unconditional obligation running to an identifiable amount of principal, the excess over which is interest. You would at least have a conceptual problem in having the excess treated as interest under the current terminology the courts use.

Secondly, on group termination, if you did not require that the obligation of participants survive group termination, you would clearly have the problem that student "A" with a higher income is paying principal on behalf of student "B". In that situation, you at least have again this fuzzy question -- whether student "B" has realized taxable income, or whether there is a gift from student "A" to student "B". The problems that arose out of the application of these troublesome concepts applied to a new situation were solved by having an unconditional obligation on the part of each student, and identifying and allocating the insurance premium.

(Voice) In the event of bankruptcy of a student, what would be the effect, let's say, on the other students? Would this effectively violate Truth-in-Lending, where everybody is now paying more principal than they originally anticipated?

(Mr. Hornblower) I don't think it would violate Truth-in-Lending. There are so many things that could happen that might increase an individual's load or decrease it, that this particular one I don't think would foul it up.

(Professor Leff) If you lend money to "A" and "B", who agree that they are going to pay back together, the lender can collect the total amount from either "A" or "B", and they can fight it out between themselves. The understanding would be that if "A" paid all of it, he has a right to recover half of it against "B". But if "B" dies, or if he defaults or goes into bankruptcy, the obligation of "A" is still as it was from the very beginning. That does not change his right vis-a-vis the lender at all. It is just the same deal that he got into in the first place.

(Mrs. Estes) Let us suppose that Yale has a claim in the bankruptcy court. How much we are going to recover in that court (a penny on a dollar perhaps) is something else again. However, the plan does specify what the participant's obligation will be in the event of bankruptcy; in other words, what he owes. So that a court looking at this claim could decide what the amount of the debt is and, therefore, allow Yale to collect a portion of it.

(Voice) What is the early termination amount?

(Mr. Hornblower) 150 percent.

(Voice) For Mr. Hornblower and the Truth-in-Lending; I have heard a number of concerns about the feasibility of developing an operational disclosure statement for the wide variety of contingent repayment plans that can be brought into existence. Would there be perhaps a few key criteria that

you could cite that would indicate that, yes, it is possible to have a Truth-in-Lending disclosure statement prepared where you do have this contingent implication?

(Mr. Hornblower) Well, I would say examples based on the best statistics you have of income profiles over a period of time, and assumptions that are most likely to occur; an inflation factor, probably greater next year than you use this year, perhaps, because of our experience; insurance rate assumptions -- perhaps this year might be a little bit less because currently the premium rate is so far down. I don't believe I have answered the question precisely. I don't think I could be precise on this one.

(Voice) You could conceivably use normal income data even though you do not get a specific example from a particular school? Say this was the best expectation you had of what the person's earnings might be, that would not disqualify it, would it?

(Mr. Hornblower) I would not think so, no. They don't have regional income statistics, do they?

(Voice) I don't know.

(Chairman Buesking) I do not believe they do by professional classes. I think they do in the trades.

(Mr. Tyler) The National Bureau of Labor Statistics has some of that data, but I am not sure that it reaches the economic level of the graduate student.

(Voice) I think with census data, you could get some distributional profiles and then perhaps also those starting salaries which are easier to get on an institution basis.

(Chairman Buesking) Thank you very much, Ellen and panel. We appreciate your time.

I want to thank you all for coming. I think, if anything, you have probably discovered that Yale's plan is not the only one by a long shot. I think, also, that my earlier observation that you cannot enter one of these lightly is correct. They take substantial effort and research to determine exactly where you are going to go and how you are going to go about it.

I think you can benefit substantially from what we have done thus far and we will be glad to work with you as best we can on any given area. The information that has been generated is virtually all in the public domain, except for our own particular income profile, which we treat with some proprietary pride. But other than that, I think the rest of it is totally available.

Two or three points. People have asked me about things we have not covered and just did not have time for. The whole enforcement and collection problem has not been dealt with while you were here. I think if you

will study the plan, you will find that all the sanctions and procedures are there for collection and enforcement. We will have to pursue those as we do in our conventional loan programs.

Another thing that has not been dealt with is the whole problem of acquisition of the 1040. One the basis of calculations, we reserve to ourselves the right to ask the individual to provide us with a copy of his filed IRS return as a basis of validating his payments. We will probably do this on a sample or a sporadic basis rather than as a routine submission every time he submits his return. So we will have to judge those and, analyzing our returns from people, see whether or not we have a substantial enforcement problem and we are going to require 1040's or whether or not we think we are getting by and large reliable information just in the semi-annual payments and the annual submission.

One final thing I would like to mention: we said we have invested about a quarter of a million dollars in our plan thus far. About $200,000 of that has been raised from outside fund sources, primarily foundations, and we are expecting to continue to pursue that course as far as underwriting the startup and the research and the growing pains of this thing for the first four or five years. We felt it was unfair to burden the participants in the first five years with paying for the learning experience that we all would have.

We also have a substantial proposal in to the office of HEW which they are considering at the present time. If they do finance some or all of this, it will enable us to carry out considerably more research, primarily not for our own education, but for the purpose of providing it back to HEW and the educational community.

One unrecognized hero in our group today that I would like to mention and thank is C.P. Howland, who has arranged all the logistics, and probably had more contact with the students than all the people in the room. If you really want to learn about student opinion, I think C.P. could talk at great length about the educational process. He had the primary task of "sell" in Yale College.

The other thing we have thought long and hard about is what kind of federal legislation is useful to us in advancing higher education. Again, there are as many opinions as there are people, maybe. But one prime thing has been the secondary money market, whether it is a two-paper scheme, as Bruce and somebody else described here today, or whether it is income contingent, I think, is not important. I think the mechanism of a secondary market is all important. So we probably will be doing some thinking and some coordination with foundations and with interested governmental agencies and committees on that in the near and continuing future. I think that it behooves all of us to develop some grass roots opinions from people who are going to represent us in the administration and in Congress on the subject of advancing higher education so there will be some continuing effort on our part, at least as far as the secondary money market is concerned, to show the advisability of having longer terms than the conventional programs. Because although students may not like thirty-five years, they might prefer ten -- and I think Bruce would support that contention.

Also, there is an intermediate term that people might be looking for in the fifteen to twenty year range, maybe twenty-five, and we would like to see enabling federal legislation that would permit this to happen, if people wanted to use those kinds of terms in higher education.

Any other questions? It has been a long and arduous two days. We will be putting out the transcript as rapidly as the young lady will develop it, and we can edit it. We will shoot to be more timely than our last seminar transcript, and all the tables and data which people have presented will be appended to it and distributed to you.

ATTENDEES

Tuition Postponement Seminar

INSTITUTIONS	REPRESENTATIVE AND TITLE
AMHERST COLLEGE	Professor Edward M. Jennings, American Council on Education Fellow Dean Donald Routh, Dean of Financial Aid
BARNARD COLLEGE	Theodore P. Stock, Director of Financial Aid
BLANTON-PEALE GRADUATE INSTITUTION	Donald E. Smith, Director Arthur W. Walter, Comptroller
BOSTON UNIVERSITY	Professor H.K. Wu, Professor of Finance Professor S.C. Hanna, Professor of Business
BROWN UNIVERSITY	Alan P. Maynard, Bursar
CLARK UNIVERSITY	Lawrence L. Landry, Assistant Treasurer
COLGATE UNIVERSITY	Raymond M. Krehel, Vice President and Treasurer
COLUMBIA UNIVERSITY, TEACHERS COLLEGE	Scott Burns, Jr., Director of Student Aid
COLUMBIA UNIVERSITY	Robert J. Cooper, Assistant Vice President
CORNELL UNIVERSITY	R. Peter Jackson, Director, Student Records and Finance
CREIGHTON UNIVERSITY	James E. Koopman, Comptroller
CUSHING ACADEMY	D. Lloyd Jones
DUKE UNIVERSITY	T.C. Beatty, Assistant Director of Financial Aid J. Spencer Ferebee, Jr., Graduate Student and Research Assistant in Psychology
STATE UNIVERSITY SYSTEM OF FLORIDA	C.J. Carter, Coordinator of Program Planning
GEORGETOWN UNIVERSITY	William R. Patterson, Director of Student Finance
GONZAGA UNIVERSITY	William Wrigglesworth, Vice President for Finance
HAMPSHIRE COLLEGE	Margaret Howard, Assistant Professor of Economics Kenneth Rosenthal, Treasurer
HARVARD UNIVERSITY	Thomas O'Brien, Assistant to Financial Vice President Jerrold Gibson, Director of Student Employment
JEFFERSON MEDICAL COLLEGE	Arthur R. Owens, Registrar - Director of Financial Aid

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JOHNS HOPKINS UNIVERSITY	Richard E. Moll, Director, Office of Administration
MARYMOUNT MANHATTAN COLLEGE	William S. Catherwood, Chief Business Officer
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	F.R. Stevens, Director Fiscal Planning Ronald S. Stone, Executive Officer of the Graduate School
McMASTER UNIVERSITY	Sam Lanfranco, Assistant Professor of Economics
MIDDLEBURY COLLEGE	Luther Van Ummersen, Comptroller
UNIVERSITY OF NEW HAVEN	David DuBuisson, Director of Financial Aid
NEW YORK UNIVERSITY SCHOOL OF LAW	Maxine Redding, Financial Aid Officer
NORTHWESTERN UNIVERSITY	William Ihlanfoldt, Director of Administration and Financial Aid
PENNSYLVANIA STATE UNIVERSITY	Chester C. Gnatt, Staff Assistant to Vice President, Academic Affairs
UNIVERSITY OF PENNSYLVANIA - WHARTON SCHOOL	David J. Evans, Assistant Director of Admissions
PORTLAND STATE UNIVERSITY	W.T. Lemman, Jr., Vice President for Business and Finance
PRINCETON UNIVERSITY	Janet S. Hansen, Assistant Dean of the College
RENSSELAER POLYTECHNIC INSTITUTE	James J. Levesque, Assistant to the Comptroller
RHODE ISLAND SCHOOL OF DESIGN	Warren Lederhos, Assistant to the Treasurer
UNIVERSITY OF ROCHESTER	Richard D. Richmond, Systems Analyst
SARAH LAWRENCE COLLEGE	James C. Herrick, Bursar
SMITH COLLEGE	Charles L. Johnson, Comptroller Mrs. Karen Tatro, Administrative Assistant in the Financial Aid Office
SOUTHERN METHODIST UNIVERSITY	Billy Watson, Associate Dean
TILTON SCHOOL	C. Wilson Place, Business Manager Stephen M. Anderson, Director of Admissions

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TUFTS UNIVERSITY	Richard Tilden, Staff Assistant to University
WELLESLEY COLLEGE	Roger K. Frey, Bursar
WESLEYAN UNIVERSITY	P. Jerome Cunningham
WORCESTER POLYTECHNIC INSTITUTE	Edgar F. Heselbarth, Director of Financial Aid Donald P. Reutlinger, Dean of Student Affairs
YALE UNIVERSITY	Albert W. Buesking, Associate Treasurer for Financial Management and Comptroller Ralph C. Burr, Director of University Financial Aid Kenneth Codlin, Director of Business Affairs for Computation William E. Curran, Assistant Treasurer, Director of Tuition Postponement Office Ellen G. Estes, Tuition Postponement Office Richard Ferguson, Director of Financial Planning Charles P. Howland, Tuition Postponement Office Arthur A. Leff, Professor, Law School Louis Silversin, Department of Economics David K. Storrs, Tuition Postponement Office Charles Taylor, Jr., Provost and Acting President Donald W. Taylor, Dean, Yale Graduate School James Tobin, Sterling Professor of Economics

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SALOMON BROTHERS	Robert D. Kenny
GREATER ST. LOUIS DENTAL SOCIETY FOUNDATION	Peter A. Hummel, Board of Directors
TRAVELERS INSURANCE COMPANY	Philip R. Reynolds, Vice President, Securities
WIGGIN AND DANA	Cheever Tyler
WILMER, CUTLER AND PICKERING	Reuben Clark Marshall Hornblower

POSTSCRIPT

As these proceedings go to press the first year of Tuition Postponement lending is ending successfully. Approximately 1,500 students at Yale were able to finance part of their educational costs through the Plan, including slightly over 25 per cent of undergraduate students. Attached as Appendix 1 is a tabulation of loans made in the three major areas of the University.

The strong interest of graduate students in the Plan, combined with financial need which far outstrips those funds available through the National Defense Education Act program, has led Yale to offer participation in the Plan to a much larger group of graduate students for 1972-73. We project that approximately 610 Graduate School students will use the program to finance about $635,000 of their educational expenses.

Several other universities have announced loan plans which in various ways relate the payments a borrower must make to his income, the central feature of Tuition Postponement. Each plan is different, and each has provisions applicable to that university only. Yet all share the common goals of maintaining financial stability for the university and reducing the potential burden of educational loan repayments on students.

Appendix I

1971-1972 TPO Participation

Yale College ($813,000)	Men	Women	Total
1972	186	17	203
1973	204	30	234
1974	241	43	284
1975	370	78	448
TOTAL UNDERGRADUATE	1,001	168	1,169
Graduate School ($47,000)	34	14	48
Professional Schools ($176,000)	245	52	297
OVERALL YALE PARTICIPATION ($1,036,000)	1,280	234	1,514

Appendix I (Continued)

Analysis of Undergraduate Participation

Group	% of Group Participating	% of Aid Students Participating in TPO	% of Non-Aid Students Participating in TPO	% of Participants on Financial Aid
1972 Men	19%	31%	8%	77%
Women	12	22	6	71
1973 Men	23%	32%	13%	75%
Women	15	25	8	70
1974 Men	25%	36%	16%	66%
Women	19	37	8	74
1975 Men	36%	57%	16%	78%
Women	28	45	11	82
Men	26%	39%	13%	74%
Women	20	35	8	77
Total	25%	39%	12%	75%